



BHUTAN EDUCATION BLUEPRINT 2014-2024

— Rethinking Education —



Ministry of Education



First Edition 2014

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**Bhutan Education Blueprint
2014-2024**

— Rethinking Education —

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Dedication



To a King who was born of a sacred prophecy and lives a life that far surpasses the expectations of his own destiny.

This **Blueprint** is dedicated to the 60th Birth Anniversary of our beloved Monarch Drugyal Zhipa who has always believed that the greatness of a country is determined by the productiveness and character of its people, shaped by the quality of education they receive.



As I serve my country, I have a number of priorities. Number one on my list is education. Education is empowering- it's a social equalizer and it facilitates self-discovery, which leads to realizing one's full potential. Good education gives you confidence, good judgment, virtuous disposition, and the tools to achieve happiness successfully. A good school gives a child a fair shot at success and ensures that a person's achievement in life will not be predetermined by his or her race, parentage and social connections.

-His Majesty Jigme Khesar Namgyel Wangchuck, 2014

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Executive Summary

EXECUTIVE SUMMARY

“We can dream of a strong bureaucracy of the highest standards but we must not forget that those standards must be set in school where our future bureaucrats are. We can dream of world class IT parks, of being an international financial centre, of competing at international standards but we must not forget that we can have none of these if our schools and colleges do not bestow such talents and skills. We can dream of a nation of environmental conservation, GNH, a strong economy, a vibrant democracy and yet none are possible or sustainable if we have not already toiled and sweated in the building of a strong education system.”

His Majesty the King’s address at the 3rd Convocation of RUB (February 17 2009)

Background

Education has played a central role in the social, economic, political, cultural, intellectual and environmental development of the country to give it a distinct identity as a small, peaceful, progressive and happy nation. The Royal Government of Bhutan continues to accord high importance to education as an engine of growth in the nation building process. The past millennium of modern education has enhanced access to education and saw its immense benefit to the country in terms of producing a generation of nation builders. In spite of these achievements, the system still faces several challenges as it seeks to further enhance educational access, quality, equity and system efficiency at all levels of the education system.

As a developing country known for mutual co-existence in harmony with nature and environment, spirituality, peace and happiness, Bhutan aspires to be a self-reliant, economically prosperous, environmentally sustainable, democratically sound with strong culture, the citizens of which are creative, highly skilled and capable of responding to the emerging global challenges and contributing to the equitable and sustainable socio-economic development and well-being of their community and the nation (NEF, 2012). The extent to which Bhutan’s

aspiration to become self-reliant and prosperous depend on the knowledge, capability and character of its citizens. Hence, Bhutan’s human development policies, especially those relating to education, training and employment, must take into account the demands of the emerging economy.

The Bhutan Vision 2020³⁹ emphasises a holistic approach to education. The document also envisages an education that inculcates an awareness of the nation’s unique cultural heritage and ethical values as well as universal values that develop the capacity of the young people. This requires a system of *Whole Education* that grooms the citizens to become knowledgeable, skilful, creative, enterprising, mindful, reflective, confident, and capable of responding to the emerging global challenges and who make a conscious effort to uphold the traditional values of the nation.

As a lever to propel the country forward, education has always been accorded the highest priority. Bhutan’s education journey began with only a few hundred students in the early 1960s to about 200,000 students as of 2014 studying in over 600 schools and institutes. The rewards have been diverse and fulfilling. The current generation of nation builders, like policy makers, bureaucrats, businessmen, etc. are all products of the Bhutanese education system.

However, owing to the changing demands of the changing times, the education system in Bhutan has come under increased public scrutiny and debate for the system's inability to provide the necessary knowledge and skills to meet the new challenges. This establishes the urgency for ambitious review and reform actions in the education system at the earliest.

The requirements for a radical and systemic education reform was confirmed through various studies conducted by the Royal Education Council, Bhutan Council for School Examinations and Assessment, Ministry of Education and other independent bodies. These studies indicate a growing gap between the current and the desired state of quality of learning outcomes. The gaps are prevalent in the students' learning outcomes, classroom practices, school processes, and education support systems.

Inspired by the national aspirations of preparing Bhutanese children to be nationally and globally productive, the government in the 33rd session of *Lhengye Zhungtshog* approved the Ministry's proposal for the development of Education Blueprint. The document has been prepared based on a comprehensive review of the current education system and nationwide public consultations. The Blueprint presents a time bound strategic roadmap for a systematic transformation of the school education system. The Education Blueprint has three specific objectives:

- Understand the current performance and the emerging challenges of the Education system with focus on improving access to education, raising quality of education, closing achievement gaps, and maximising system efficiency through a strategic roadmap,
- Establish a clear student and education vision and aspirations to suit the emerging needs and demands, and
- Strategize a comprehensive transformation of education system to ensure that Bhutanese students achieve the best of the indigenous wisdom and global competence.

The preparatory process of the Blueprint took place through a three tier governance structure, namely the National Steering Committee, National Task Force and Education Review Office. This structure was pinned around the Education Review Office established in May 2014 with the mandate to spearhead the development of the Bhutan Education Blueprint.

The task of developing the Blueprint was carried out in collaboration with several organizations and agencies such as the Royal University of Bhutan, Paro College of Education, National Statistical Bureau, Royal Education Council, and Bhutan Council for School Examinations and Assessment. Over the course of eight months, more than 11,000 people comprising of students, teachers, school leaders, ministry officials, parents, law makers, eminent scholars and administrators, senior citizens, business people, bureaucrats and members of the general public were consulted.

The Education Blueprint development process was carried out in five phases from May to December 2014:

- Project initiation phase
- Education sector review phase
- National consultation phase
- Drafting phase
- Post consultation phase

The reform interventions are explained in four themed outcomes such as *Achieving Access to Education*; *Achieving Quality Education*; *Achieving Equity in Education*; and *Achieving System Efficiency*. The four themes must ultimately contribute towards the development of the nine attributes of the learners: knowledge and understanding, intellectual competence, communicative competence, enduring habits of life-long learning, family, community and national values, spirituality and character development, physical wellbeing, leadership competence, and world-readiness.

The Blueprint identifies eight shifts to transform the education system through the four thematic

outcomes. The shifts originate from the reviews conducted on the current education system and the nationwide consultations. Each shift addresses at least one of the four system outcomes of *achieving access in education, achieving quality in education, achieving equity in education, and achieving system efficiency*. The shifts are further translated into forty game-changing initiatives.



The Blueprint is presented in five Chapters.

Chapter 1: *Context and Approach* establishes the need for system reform and narrates the Blueprint preparatory processes.

Chapter 2: *Emerging Challenges* examines the gaps in the current scenario and probes into the emerging challenges in the education system. It identifies areas that require interventions for system improvements based on the findings of the national consultations.

Chapter 3: *Vision and Aspirations* spells out the vision and aspirations of the education system. It outlines a set of aspirations for the Bhutanese education system by focusing on national aspirations, system and student aspirations. This segment also contains details of nine student attributes that form the foundation of *Whole Education*.

Chapter 4: *Recommended Shifts and Game Changing Initiatives* contains a set of shifts and initiatives deriving from the gaps identified in Chapter 2. This chapter also suggests a time bound strategic roadmap for systemic transformation to fulfil the national, system and student aspirations.

Chapter 5: *Delivering the Roadmap* looks at the deliverable strategies of the Blueprint. It outlines how the policies and game changing initiatives will be implemented through a sequenced and focused strategy to ensure that the Blueprint delivery is a success and transform the education system as envisaged.

The envisaged reform interventions are broad and complex. Therefore, in order to bring reforms systematically and strategically, the Blueprint has sequenced the transformation to occur in order of priority as follows:

Wave 1 (2014 to 2017): The Blueprint will bring about a rapid turnaround programme by rolling out the implementation of game changing initiatives to raise teaching quality by up-skilling the teachers' content and pedagogical competencies, empowering school leaders by streamlining selection, orientation, induction and deployment systems and decentralized management practices. Languages, Mathematics and Science subjects will be up-scaled; Social

Sciences will be revamped, continuous professional development programmes for teachers and school leaders will be institutionalized, ECCD & SEN, NFE and CE, iSherig Master Plan and Teacher HR Policy will be implemented in spirit and practice, formative and summative assessment systems shall be streamlined. The Ministry will also strengthen and empower the district/municipality education offices to improve the quality of frontline support services to schools. By the end of Wave 1, all the teachers, principals and schools must achieve a minimum quality standard.

Wave 2 (2018 to 2020): This wave shall be dedicated towards up-scaling the transformation processes by accelerating the pace of change initiatives like institutional work dynamics and culture. Any spill over works and programmes from Wave 1, like the establishment of new infrastructures, curriculum diversification and offering multiple pathways, professional development programmes for teachers on pedagogy on revised curricula, reinforcing the changes on the organizational set up of the ministry, improving student learning outcomes in tune to international benchmarks and establishing strong school community partnership programmes will be implemented.

Wave 3 (2021 to 2024): By the end of Wave 3, the schools and education system should be performing at high levels of effectiveness and efficiency. The goal is to create a self-sustaining system that is creative, innovative and enterprising. Through the decentralized management system and greater autonomy to the schools and districts, the Ministry will focus on increasing operational flexibilities in a sustained manner. The Ministry will create a peer led culture of professional excellence in all schools where teachers mentor and inspire one another, share best practices, hold their peer accountable for professional standards, scale-up curriculum and assessment to meet international benchmark, scale-up innovations and options to continuously raise English language and STEM competency among teachers, scale up ICT innovation in teaching and learning to support teaching learning programmes in all schools and also

scale-up private sector and international partnership in education. The Ministry will ensure participation in international level tests during wave 3.

The anticipated successes of the education system delivery will largely hinge upon support mechanisms such as strong financial and resource commitments of the Government. Both Ministry and Dzongkhags/Thromdes will have to move from its predominantly administrative role to one that is focused on improving system performance as per the restructured and redesigned roles and functions respectively.

The development of the Bhutan Education Blueprint was primarily triggered by the need to adapt the education systems to the changing times of the new century. The Blueprint considers quality as the common underlying focus across all the shifts as this is the educational dimension that deserves the most immediate and urgent attention.



Chapter 1

Context and Approach

Chapter 1

CONTEXT AND APPROACH

1.1 Background

The present education system is an outcome of decades of planned development and has always played a central role in the pursuit of political, cultural, environmental and socio-economic development of the country, as a unique, progressive, peaceful and sovereign nation. The modern education journey began with a few hundred students in the early 1960s to about 200,000 students in over 600 schools and institutes spanning across the length and breadth of the country as of 2014. The rewards have been diverse and fulfilling. The current generation of nation builders like policy makers, professionals, bureaucrats, businessmen, etc., are all products of the Bhutanese education system. As a lever to propel the country forward, education is seen as a legitimate investment in the empowerment of its citizens and the nation's transformation. Therefore, the Royal Government of Bhutan continues to accord highest priority to the education sector in the nation building process.

The Bhutanese education journey has scaled many milestones through periodic efforts in the form of policy changes and adaptations to modernistic approaches including expansion of access to education and subsequently the nationalization of school curriculum since the early 1970s, introduction of New Approach to Primary Education (NAPE) in the mid-eighties, nationalization of the high-stake examination to Educating for GNH have been initiated strategically to improve the education system.

The school education system consists of seven years of primary education (PP-VI), including one year of pre-

primary, followed by four years of lower and middle secondary (VII-X), and two years of higher secondary (XI-XII). Bhutan provides free basic education from grade PP at the entry age of six till grade X. However, selection of students for government scholarship to pursue higher and tertiary education after completion of post-secondary education is strictly based on merit and availability of slots as per the human resource needs of the country. Students who complete grade XII but do not qualify for government scholarship programmes pursue their tertiary education through private arrangements on self-financing basis.

The country is close to meeting universal enrolment in the primary level at 95 percent and secondary enrolment level at 85 percent in the year 2014. The net enrolment ratio for the higher secondary education (XI & XII) currently stand at 27 percent and the gross enrolment ratio at tertiary level is estimated at 24 percent as of 2014⁴². The Gender Parity Index (GPI) based on GER stands at: 0.98 for primary level, 1.04 for secondary level, 1.16 for higher secondary level, and 0.78 for tertiary education level⁴². The overall literacy rate today stands at 63 percent.

A detailed information on the growth of education and current situation in the Bhutanese Education system can be found in Appendix I.

Bhutan Education Milestones

<p>1914</p> <ul style="list-style-type: none"> Started first school in Haa <p>1952</p> <ul style="list-style-type: none"> Established schools in Bumthang, Trashigang, Haa, Paro, Damphu and Wangdiphodrang <p>1961</p> <ul style="list-style-type: none"> Established Semtokha <i>Rigzhung Lobdra</i> <p>1965</p> <ul style="list-style-type: none"> Established Thimphu Public School, Thimphu <p>1967</p> <ul style="list-style-type: none"> Trashigang High School appeared for class XI Cambridge Examination First batch of class X graduated from Bhutanese schools <p>1968</p> <ul style="list-style-type: none"> Established Teacher Training Institute (TTI), Samtse Established Sherubtse Public School, Kanglung <p>1972</p> <ul style="list-style-type: none"> Introduced grade V and VIII common examinations <p>1973</p> <ul style="list-style-type: none"> Established Muenselling Institute for the visually impaired, Khaling 	<p>1974</p> <ul style="list-style-type: none"> School Feeding Programme (SFP)- started WFP assistance <p>1975</p> <ul style="list-style-type: none"> Established Teacher Training Centre (TTC), Paro <p>1976</p> <ul style="list-style-type: none"> Upgraded Sherubtse Public School to Junior College <p>1983</p> <ul style="list-style-type: none"> Upgraded Sherubtse Junior College to Degree College Upgraded TTI, Samtse to National Institute of Education <p>1985</p> <ul style="list-style-type: none"> Introduced New Approach to Primary Education (NAPE) <p>1986</p> <ul style="list-style-type: none"> Grade V common examination changed to grade VI common examination Upgraded Examination Cell to Bhutan Board of Examinations (BBE) <p>1987</p> <ul style="list-style-type: none"> Established first private school <p>1988</p> <ul style="list-style-type: none"> Nationalized heads of schools and institutes <p>1992</p> <ul style="list-style-type: none"> Introduced Non-formal Education Programme 	<p>2001</p> <ul style="list-style-type: none"> BBE conducted the first Bhutan Certificate for Secondary Education (BCSE) Examination (grade X) <p>2002</p> <ul style="list-style-type: none"> Introduced Special Education Needs (SEN) Unit at Changangkha LSS, Thimphu <p>2003</p> <ul style="list-style-type: none"> Upgraded Department of Education to Ministry of Education Established Royal University of Bhutan Launched ECCD Programme Established Education for the Hearing Impaired Unit at Drukgyal LSS, Paro <p>2004</p> <ul style="list-style-type: none"> Initiated major curricular reforms in English, Dzongkha and Mathematics <p>2006</p> <ul style="list-style-type: none"> BBE conducted the first Bhutan Higher Secondary Education Certificate (BHSEC) examination (grade XII) Started Continuing Education programme in Kelki HSS, Thimphu <p>2007</p> <ul style="list-style-type: none"> Established Royal Education Council (REC) Established Royal Thimphu College as the first private college <p>2008</p> <ul style="list-style-type: none"> Grade VIII common examination discontinued 	<p>2010</p> <ul style="list-style-type: none"> Initiated Educating for GNH programme Decentralized procurement of Teaching-Learning Materials to Dzongkhags and Thromdes <p>2011</p> <ul style="list-style-type: none"> Upgraded BBE to Bhutan Council for School Examination and Assessment (BCSEA) Started Bhutan Civil Service Examination for B.Ed graduates The Royal University of Bhutan became an autonomous national university <p>2012</p> <ul style="list-style-type: none"> Established Centenary Institute of Education (CIE), Yonphula, Trashigang <p>2013</p> <ul style="list-style-type: none"> Established University of Medical Sciences of Bhutan (UMSB), Thimphu <p>2014</p> <ul style="list-style-type: none"> Piloted School Autonomy Piloted <i>iSchool</i> concept School Feeding Programme – initiated centralized procurement & distribution of non-perishable food items Initiated School Reform Programme and establishment of Central School. Launched National Reading Year REC reconstituted by merging REC and DCRD Launched Bhutan Education Blueprint 2014 – 2024
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Figure 1.1: Bhutan Education Milestones

1.2 The Context for Change

Bhutan Vision 2020³⁹ gives prominence to the nation's educational development in terms of delivering access and quality of education. It also emphasizes the total development of the child, preparing young people for the world of work, teacher preparation, professional development, and intensifying efforts in educational innovation by taking advantage of new technologies. The education sector plan⁹ aspires to achieve a level of student competencies equivalent to international standards by 2020.

Numerous initiatives of the Royal Government have resulted in achieving NER of 95% and 85% for Primary and Basic education respectively⁴², and moderate success in other areas. However, in keeping with the needs and demands of the changing times, the national aspirations and individual expectations have changed with increased concerns of the system's inability to adequately prepare the young Bhutanese for the challenges of the new century. The education system is also challenged in meeting the quality education that is comparable to the international standards.

Recent studies conducted on education⁵⁴ indicate that the student learning outcomes is far from the desired state. Major gaps in the levels of understanding have resulted in high proportion of children completing the primary cycle without acquiring basic skills in literacy and numeracy.¹⁴ Students average score in ASSL 2008⁵¹, 2010⁵³ and 2011⁵² and also in NEA 2010², have consistently indicated students' lower learning outcomes. In the NEA findings, urban students performed better than the rural students, showing existence of inequity in educational opportunities.

Further, in recent years, quality of education has come under increased public scrutiny and debate. General concerns on quality of education including youth related issues have been expressed at various forums by stakeholders including the parents, media, schools, Dzongkhags, the Parliament, the first Interim Government, etc. These concerns point towards the system's inability to address the gaps and adequately prepare the young Bhutanese for the challenges lying ahead.



1.3 Rationale for the Blueprint

Given the nature of the education system and its complexity as a public sector undertaking with multi-faceted stakeholders, a practical and far-reaching transformative approach is required to be put in place to address the numerous challenges in education. Various studies suggest the need to enhance urgent development of strong leaders, continuous professional development of teachers and greater autonomy to schools to raise the standards of student learning.

Emerging challenges and opportunities arising due to globalization of the economy, and rapid technological changes call for the need to rethinking of educational strategies to enable students to gain appropriate knowledge and higher order thinking skills. The 21st century market economy necessitates the citizens to be equipped with the knowledge, skills, and values and attitudes to become socio-economically productive members of the society. This entails the requirement of the education system to rapidly adjust to the fast changing needs, promote acquisition of high competencies, interpersonal skills and collaborative efforts that can be applied to a variety of work situations to be work-ready and globally competitive in all sectors.

With the rising expectations of the people and the overall concerns to enhance the quality of education, there is an urgent need for the system to enhance its capability to prepare young people for the challenges of the 21st century. Given the problems and challenges of the current education system, there is a pressing need for the system to initiate bold steps for fundamental transformation.

The Bhutan Education Blueprint 2014-2024, proposes rethinking in education and taking radical steps to respond to the challenges and changing needs of our education system more holistically. The Blueprint is the result of nationwide consultative and extensive research carried out by the Ministry of Education. It aims to establish the vision and aspirations for Bhutan’s education system as a time bound roadmap (2014-

2024) of policy initiatives and recommendations to achieve the overall education goals of the country.

1.4 The Purpose of the Blueprint

“Today I speak on behalf of our teachers and students – our teachers will always be committed and dedicated teachers – our students will always be diligent and loyal students – but it is the duty of parents, policy makers and the government to put the right tools in their hands – the right books, the right curriculum, the right direction.”

(His Majesty the King, 3rd Convocation of the Colleges of Education, RUB, February 17, 2009)

Bhutan’s political system and socio-economic situation is passing through a phase that demands a robust and forward-looking education system. The education blueprint, through a time-bound road map, will ensure a strategy to adequately prepare young Bhutanese for the challenges of the 21st century. The transformative journey will elevate the education system to a level of excellence comparable to international standards, thereby producing academically competent, technically sound, caring, reflective, disciplined, creative, communicative, skilful and productive individuals⁴⁹.

The Education Blueprint, as a reform initiative, will therefore:

- Examine the performance and challenges of the current Education system with focus on improving access to education, raising quality of education, closing achievement gaps, and maximising system efficiency,
- Establish a clear vision and aspirations, for students and for the education system as a whole for 10 years and beyond, and
- Outline a comprehensive education system transformation journey to ensure that Bhutanese students achieve the best of the indigenous wisdom and international competence.

1.5 Blueprint Development Approach

Inspired by the leadership, national vision and public aspirations in preparing Bhutanese children to be nationally and globally competitive, the Ministry of Education has embarked on a major initiative towards developing a responsive and robust national education transformation roadmap. In May 2014, the Education Review Office (ERO) was accordingly established to review the current education system and recommend strategies to address the shortcomings.

The ERO, comprising professionals from the Ministry of Education and other relevant stakeholders conducted a thorough review of the current education system. In developing and drafting this vision the ERO consulted educators and relevant organizations at both local and national levels.

The preparation of this blueprint took place in two stages. The first stage involved detailed review and diagnosis of the education system to assess the current status and identify priority areas for improvement. The second stage engaged a methodology (combine use of quantitative and qualitative data) that examined issues arising from the nationwide consultations to chart out the detailed transformative roadmap (Figure 1.2).

The national consultations covered a series of one-on-one interviews with eminent personalities, focus group discussions with homogenous groups of people (such as parliamentarians, teachers, civil servants, farmers, armed forces and the monastic body) and *zomdues* (town hall meetings) with heterogeneous groups of people (mostly parents) were convened to crystallize consensus and inspire collaborative action around the main themes. Three different sets of survey questionnaires for students, teachers and principals, and the public (comprising of farmers, house wives, civil servants, NGO employees, corporate employees, private employees, business people, armed forces, and monks) was also conducted. Online forums such as the education blueprint website, Facebook and Twitter and on-air consultations (through BBS Radio and TV) were also used as alternative platforms for Bhutanese people to share their views and opinions on education and the way forward.

The Education Blueprint focused on the four educational dimensions of access, quality, equity, and system efficiency. The following chapter builds on the aforementioned dimensions based on the findings from the field survey, FGD, *Zomdues*, and One-on-One interviews and the triangulation of the findings against several independent sources (research reports, policy documents etc.).

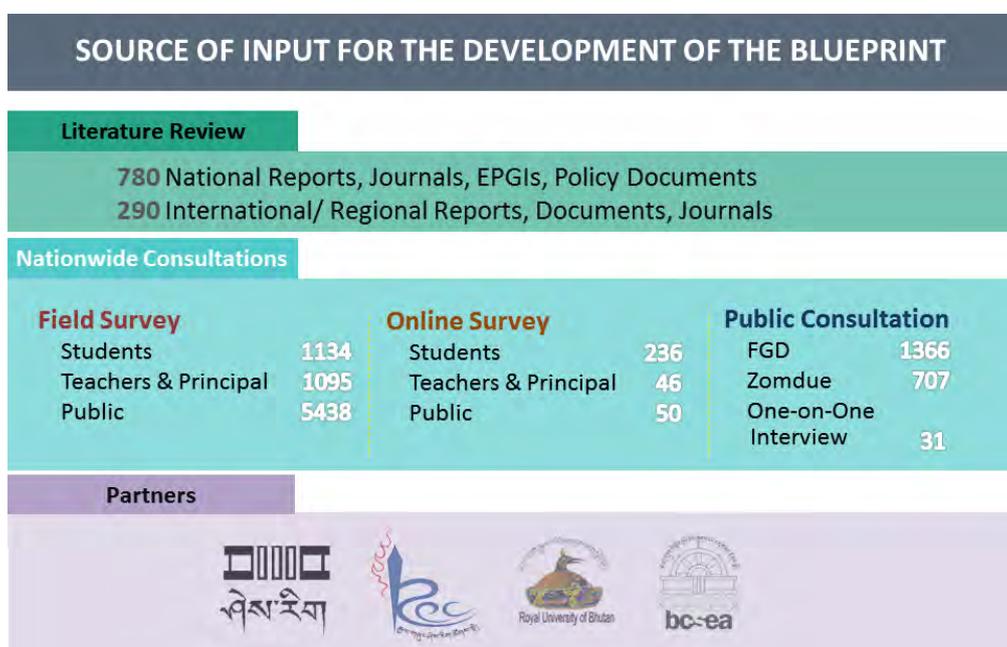


Figure 1.2 Source of input for the development of the education blueprint



Chapter 2

Emerging Challenges

Chapter 2

EMERGING CHALLENGES

This chapter examines the current performance of the education system to take stock of the achievements and identify the gaps and challenges through literature reviews, nationwide consultations including surveys, one-on-one interviews, *Zomdues*, and Focus Group Discussions (FGDs). The emerging challenges are categorized under four thematic areas: *Achieving Access to Education*, *Achieving Quality*, *Achieving Equity*, and *Achieving System Efficiency*. These emerging challenges are expected to be addressed through the recommendations outlined under each of the thematic areas.

2.1 Achieving Access to Education

Access in education refers to the ways in which educational institutions and policies ensure that students have equal opportunities to take full advantage of their education. The system aims to provide access to the entire Bhutanese children at all levels to realize their full potential. In the Bhutanese context, however, factors such as socio-economic background, economic status, disability, academic performance, and geographical location are found as barriers to access to educational opportunities.

2.1.1 Access to Basic, Higher Secondary and Vocational Education

Bhutan is close to achieving the universal primary enrolment. The increase in enrolment at the primary education level resulted in overcrowding of classrooms and admission pressure in the secondary schools. This has also caused strain on the limited resources and increase in the workload of the teachers. There is a need to increase the level of resources to support both future expansion plans and

initiatives in order to enhance access to quality basic and higher secondary education. Although the school privatization policy has eased the admission pressure in the public high schools, the disparity in accessing higher secondary education has actually widened as most of the private schools are established in urban areas. Many parents in rural areas are not able to afford sending their children to private schools.

The admission policy requires the child to have completed six years of age at the time of admission in grade PP. However, the practice of enrolling underage children is still prevalent. More than 56 percent of the public and 52 percent of teacher respondents (Figure 2.1) in the nationwide survey indicated that the entry age for PP could be brought down to 5 years. On the other hand, the qualitative findings indicated that there is a need to expand access to ECCD programme across the country to provide equal opportunity to all children to prepare them better for formal schooling.

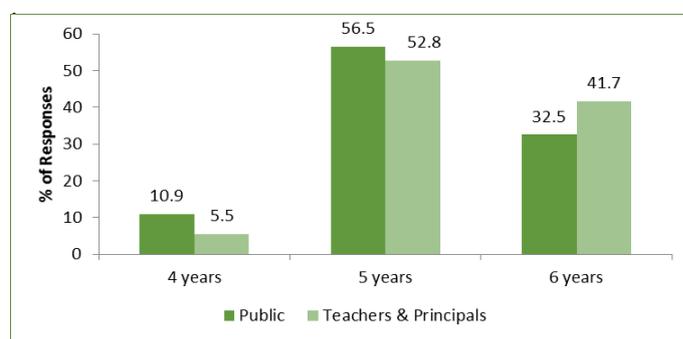


Figure 2.1: %Response on the right entry age to pre-primary (Source: Education Blueprint Nationwide Consultation)

With the school reform programme initiated, children in grade PP will also be availing boarding facilities. Therefore, bringing down the entry age to 5 years would challenge large schools to provide necessary love and care for children of that age.

Furthermore, if the children are enrolled at the age of 5 in PP they will be attaining only 15 years of age by the time they graduate from grade X which will not qualify them to join the work force as per the Labour Act. In the countries with high performing education systems, all children have right to ECCD programme and the formal school begin at the age of 6 or 7. In this context, it is deemed appropriate to strengthen and enhance the ECCD programme while the school going age is maintained status quo.

Currently, the access to higher secondary education is generally limited to academic programme. Given the growing opportunities in the technical/vocational fields and the limited provision of such programmes, there is a mismatch between the knowledge and skills acquired and the market demand for technical skills.

Limited provision of vocational subjects in the schools does not support building foundation in students for entry into Technical Training Institutions (TTIs). Although, Vocational Skill Development Curriculum (VSDC) was piloted in five schools, it failed to attract students to opt for the programme

due to factors such as inadequate financial resources, professional instructors, assessment methods and its image as “second-class education.”¹⁷ Therefore, there is a need to make technical/vocational programme relevant and attractive for students to take up programme from earlier years in the schools.

With the current development pace, industry demand for technical and vocational graduate is expected to grow. The vocational education sector is not able to cater to meet the needs of the economy due to limited capacity of the technical training institutes and the quality of programmes offered. The tracer study⁴⁰ indicated that the existing vocational education system does not cater to equipping students with the required practical skills. Hence, there is a need to improve the quality of the programme and to increase the number of TTIs with diverse subjects as well as enhance the image of the TTI graduates.

Figure 2.2 illustrates the choice of vocational subjects as indicated by the students, teachers and principals, and the general public during the nationwide consultation.

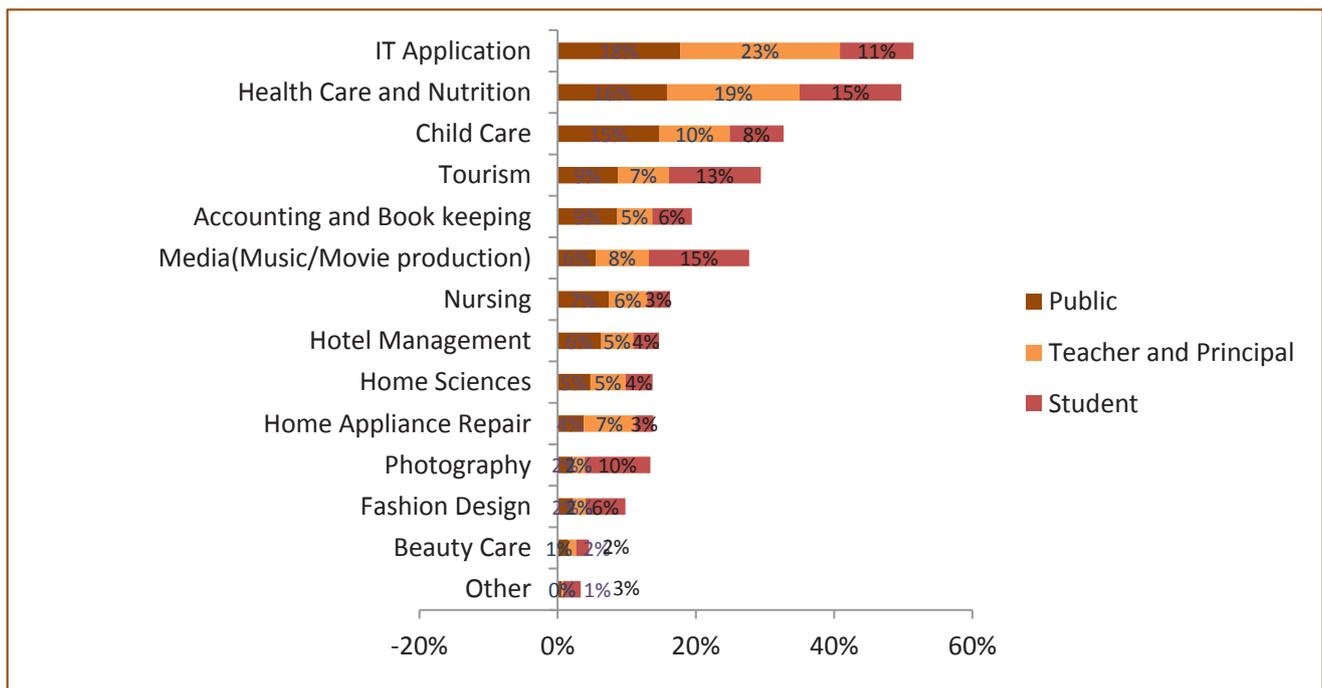


Figure 2.2 Choice of vocational subject (Source: Education Blueprint Nationwide Consultation)

Recommended Intervention

- Accelerate school reform programme initiative to improve access for children in remote areas.
- Introduce pre-vocational orientation at grade VII and VIII.
- Provide technical/vocational courses as elective subject at middle and higher secondary levels.
- Facilitate multi-sector government and industry cooperation to develop and offer relevant vocational courses at different levels.
- Revamp the quality of programmes in the existing technical/vocational institutions.
- Increase the number of technical/vocational institutions and facilitate private sector participation in technical education.

2.1.2 Access to Tertiary Education

Access to tertiary education is still a challenge due to the limited intake capacities in the existing tertiary institutions in the country and poor private sector participation. The limited number of tertiary institutions in the country have resulted in increased number of students pursuing tertiary education outside Bhutan. As of 2014, there are 2,779 students undertaking degree courses in India⁴² and other countries. Therefore, there is a need to strengthen tertiary education sector through close collaboration and partnership with the private sector.

Recommended Interventions

- Strengthen and expand the tertiary education sector and facilitate private sector participation to provide improved access.
- Establish a central agency (like Bhutan Qualification Authority) to monitor quality and facilitate student mobility.

2.1.3 Access to Non-formal and Continuing Education (NFE&CE)

The NFE programme in Bhutan has improved the literacy and numeracy levels of non-formal learners. The programme has also improved learners'

comprehension on health, hygiene, nutrition, livelihood, agriculture, culture, childhood care amongst others.¹⁹ However, adult literacy rate has improved by just 2.2 percent with 52.8 percent (male to female ratio of 65:38.7) in 2005 and 55% (male to female ratio of 66:45) in 2014. This improvement falls short of achieving full adult literacy by 2015. The Impact Assessment study¹⁹ indicated a need to improve the curriculum, delivery methodology and monitoring to strengthen its gain. Therefore, the programme needs to be strengthened to fast track the literacy rate to achieve the target for full literacy.

The Continuing Education (CE) programme is generally extended to learners pursuing higher secondary education but opportunity is limited for learners interested in tertiary level education. There is a need to expand and diversify programmes at the tertiary levels.

Recommended Intervention

- Improve NFE programme in terms of course completion time and learner completion rate.
- Expand the continuing education programme in different fields at the tertiary level.

2.1.4 Access to Special Education Needs (SEN)

The government's initiatives to enhance educational access for children with special needs remains a formidable challenge for the education sector owing to the limited number of special schools, facilities, support services and capacity of the teachers. Currently, there are 366 students⁴² with special needs which is negligible compared to the estimated population of 5,110 children aged 6-16 years with some form of disabilities. The figure is based on disability percentage of 3.14 of the projected 2014 age cohort population which is 150,315.

The nationwide consultations indicated need for expansion of support services for children with special needs. Examples of children with special needs not being able to access education due to long walking distance from home to school were cited as reasons for the expansion. The current education system

also does not cater to the needs of gifted children. Therefore, there is a need to provide appropriate programmes and support services to cater to the needs of the gifted.

Recommended Interventions

- Carry out need assessment study on special needs population to take informed decision on the need to establish new special schools.
- Strengthen and expand the specialized educational services with appropriate support services and facilities including teaching learning materials, assistive devices, access to sanitation, infrastructure, etc. for children with severe disabilities in identified institutes.
- Strengthen the capacity of teachers to enable them to cater to children with special needs including gifted children.
- Develop appropriate programmes and support services to cater to the needs of gifted students.
- Collaborate with parents and general public to provide necessary support to children with special educational needs.

2.1.5 Access to Early Childhood Care and Development (ECCD)

Research indicates that children who participate in quality ECCD programmes are less likely to repeat grades or drop out, which reduces overall costs in the education system. Similarly, for adults, their earning potential is higher and are less likely to engage in crime. The study on impact of ECCD²⁰ on school readiness also indicated that ECCD has positive impact on children in terms of school readiness.

Despite government's initiatives to enhance access to ECCD programmes by expanding community-based ECCD centres in the rural area, the programme is available to only 9 percent of children aged 3-5 years old⁴². The ECCD centres face challenges of inadequate facilitator training and poor state of physical environment. The Blueprint survey findings revealed lack of awareness on the role of ECCD in preparing children for formal schooling while at the

same time public shared concern on the lack of proper infrastructure, facilities and competency of ECCD facilitators.

Recommended Interventions

- Enhance quality ECCD programme to all parts of the country, especially rural area.
- Improve the infrastructure, facilities and the competency of ECCD facilitators to meet the Early Learning Development Standards (ELDS).
- Build the capacity of all the teachers teaching grades PP-II to cater to the ECCD needs of children aged 6-8 years.

2.2 Achieving Quality of Education

To provide quality education, the education system must enable physical and psychosocial growth and development of learners. Curriculum must foster acquisition of 21st century skills of innovation, creativity, enterprise and universal human values of peace and harmony. School leaders must be visionary and proactive to improve the school and teachers must use child-centred teaching and assessment approaches to promote understanding in all learners.

The following sections discuss the measure of student learning in various assessments and levels, the challenges and implications associated with the school curriculum and assessment practices, recruitment and development of school leaders and teachers, and promotion of enabling conditions in schools.

2.2.1 Student Learning

The Bhutanese education system, over the years, has produced the current work force in the country. Students continue to graduate through the school system to pursue higher education and return to the work force in the form of academicians and professionals.

However, the main challenge facing the education sector as a whole is how to increase the proportion of students achieving the expected learning outcomes specified for different stages of school education. The

findings of the “*Education Without Compromise*” (2008)¹⁴ showed that:

- Alarming, the overall “learning gain” is slow: *one additional year per grade is required to reach the average competency for that grade*. This implies that children are not mastering the curriculum within the prescribed time, resulting in high primary school grade repetition. Achievement levels tend to decline as children move along from PP to Class IV. Apparently, this decline is worst in Class IV, which consistently had the highest overall primary education repetition rate for 2001/2002-2006/2007, at *11.8 percent*. Even among those children who get through Class IV, a significant number either repeat or drop out in Class V and /or Class VI. It can be surmised that a high proportion of children are completing the primary cycle without acquiring basic skills in reading, writing and numeracy.
- Most children’s substandard mastery in core subjects indicates a major gap in levels of understanding. If children do not acquire competencies at primary level, particularly in English and Mathematics, they will encounter serious learning challenges later. This is also demonstrated by results that Class VII had one of the highest secondary education repetition rates (10.9 percent) and dropout rates (7.15 percent) in the six-year period studied.

The NEA (2003)⁴ revealed that urban students performed best in all cases as compared to the rural student indicating that the education system has not been effective in contributing to greater equity in educational opportunities.

In a diagnostic standardised test conducted collaboratively by REC and Education Initiatives, in 18 schools for classes V, VII and IX in English, Mathematics and Science in 2008⁵⁴, it was found that:

- Student learning outcomes are below the minimum expectations of their grade levels, unable to perform basic numeracy and literacy tasks.
- Majority of students are unable to understand

core concepts and apply knowledge to real-life situations across grades and subjects.

- Students perform better in questions related to recall and rote.
- Gaps exist even in case of procedural learning as students make simple mistakes in questions related to procedural applications.
- Students across grades performed poorly in question related to word visual problem, indicating that children have poor comprehension ability.
- Employers perceived graduates as lacking the academic preparation and professional skills to succeed in entry level jobs.

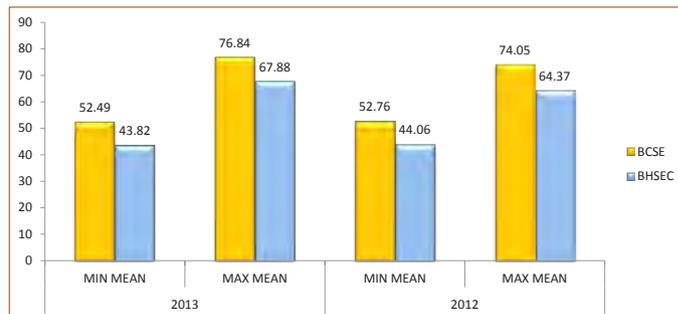


Figure 2.3 BCSE and BHSEC examination result

The mean score of students’ performance in the BCSE examinations ranged between 52.76 and 74.05 in 2012, and between 52.49 and 76.84 in 2013. Similarly, the mean score of students’ performance in the BHSEC examinations ranged between 44.06 and 64.37 in 2012, and between 43.82 and 67.88 in 2013⁷ as shown in Figure 2.3. These indicate that the overall student outcome scores in the high stake examinations is at or below national average level.

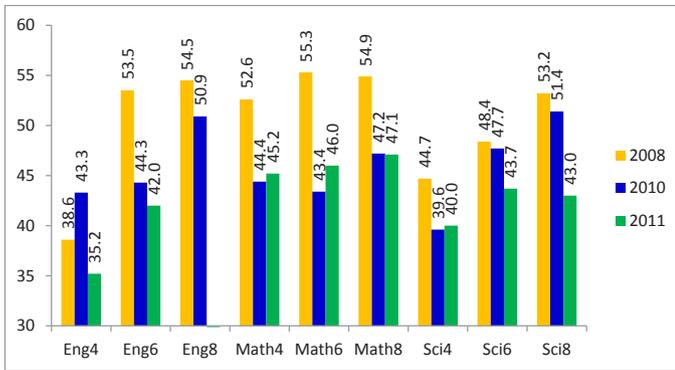


Figure 2.4. ASSL average test scores

ASSL average test scores in English have ranged between 35.2 and 43.3 in class IV, between 42 and 53.5 in class VI, and between 27.3 and 54.5 in class VIII. The average test scores in Mathematics have ranged between 44.4 and 52.6 in class IV, between 43.4 and 55.3 in class VI, and between 47.1 and 54.9 in class VIII. The average test scores in Science have ranged between 39.6 and 44.7 in class IV, between 43.7 and 48.4 in class VI, and between 43 and 53.2 in class VIII.⁵²

The ASSL findings also indicate that the student learning and achievement in English, Mathematics and Science is also low.

The findings from all these studies indicate that the overall performance of Bhutanese children is challenged in meeting not only the international standards, but also of the national standards. The reasons for these gaps can be attributed to teacher competencies, teaching learning materials, class size, curriculum and assessment, classroom practices and learning environment, relevancy and adequacy of professional development programmes, school leadership, etc. The same reasons have also been validated by the nationwide consultations.



Recommended Interventions

- Upscale the schools' resources, ICT ecosystem, and teacher competencies for experiential learning and holistic assessment.
- Turn schools into learning communities where teachers continuously research and improve student learning outcomes.

2.2.2 Curriculum and Assessment

The changing world order, the emerging new challenges and opportunities, and the changing system and student aspirations, demand for education to keep pace with these changes. Education must continue to accommodate the changes by putting in place learning opportunities that enable the attainment of the emerging aspirations of a young democracy. School curriculum therefore ought to be dynamic, relevant and contemporary to foster the development of “Holistic education – education with character.”⁵⁸

A UNESCO-IBE⁶⁴ module describes eight stages of curriculum cycle starting from curriculum dialogue and formulation, curriculum design, system management and governance, development of textbooks and teaching learning materials, capacity building for curriculum implementation, processes of curriculum implementation, and curriculum evaluation and student assessment. The current process of curriculum reform, revision and review goes through some of these stages. It is also conducted subject-wise and not periodically to review validity and incorporate emerging areas.

The 21st century education elucidates the study of core subjects where interdisciplinary themes of global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health literacy and environment literacy are integrated. It should foster the development of, learning and innovative skills, life and career skills and information, media and technology skills. It should be diversified to accommodate study of many current and emerging learning areas.

Issues have been discussed at various forums about

the pathway students take and their certification. The current education structure provides small scope for choosing electives based on student's choices. A study by MoE and GNHC recommended for the introduction of more elective subjects for grades IX-XII, to ensure students experience a broad-base and balanced education. It also recommended to review the stream system of learning areas in grade XI and XII to allow more flexibility to choose subjects to cater to a range of student interest and abilities.

Recommended Intervention

- Restructure the education pathways (Figure 2.5) to allow for greater options in choosing elective subjects, incorporating emerging learning areas.

Figure 2.5 on the next page shows the proposed education pathway and the core and elective subjects at different levels.



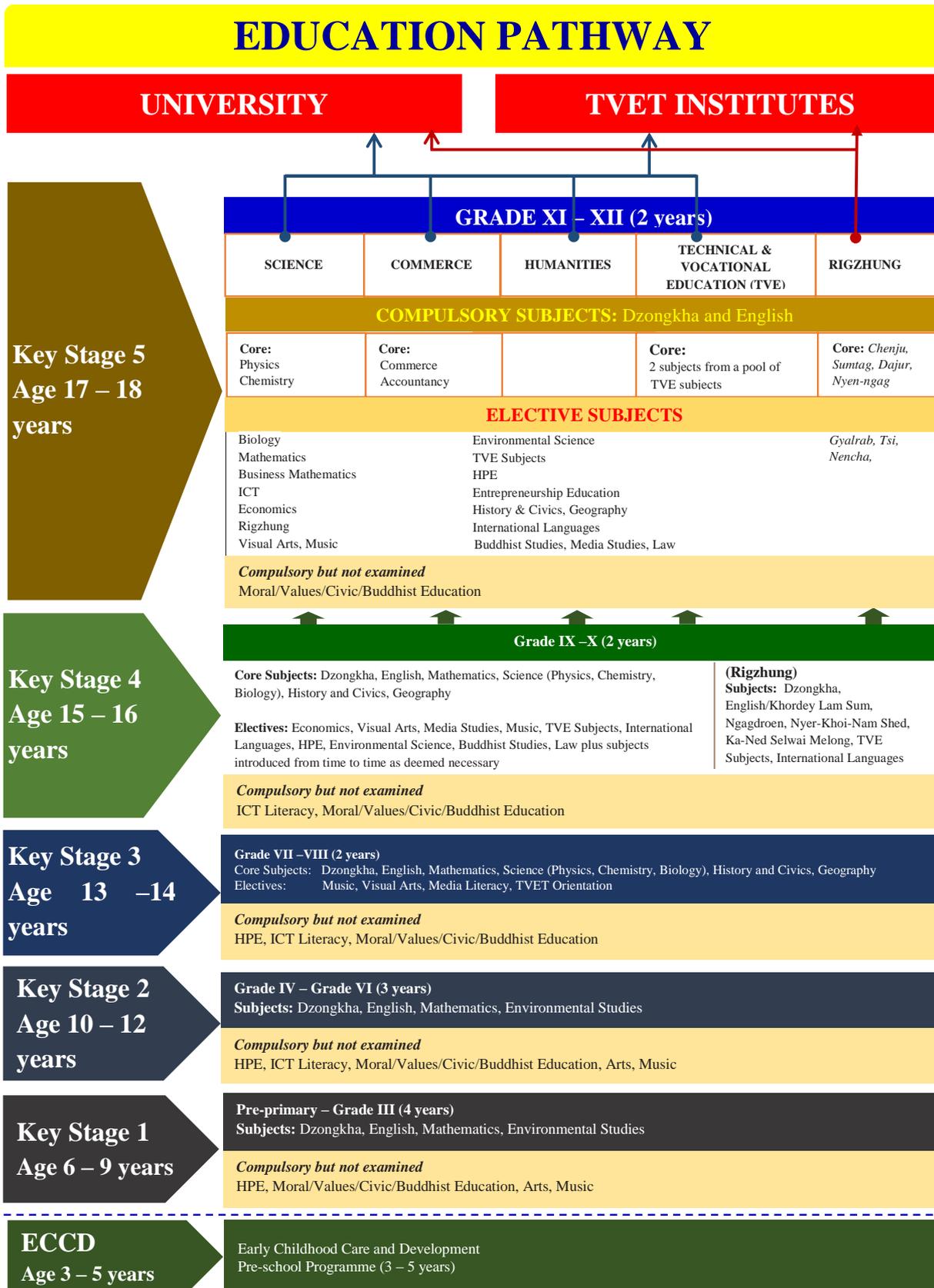


Figure 2.5 Education Pathway

With regard to the school timing, and instructional days and time per subject, except for few schools in very difficult terrain, all others follow the same opening, examination, vacation and closing time in an academic year. Consultation findings suggested having different school timings based on climatic conditions as shown below (Fig. 2.6).

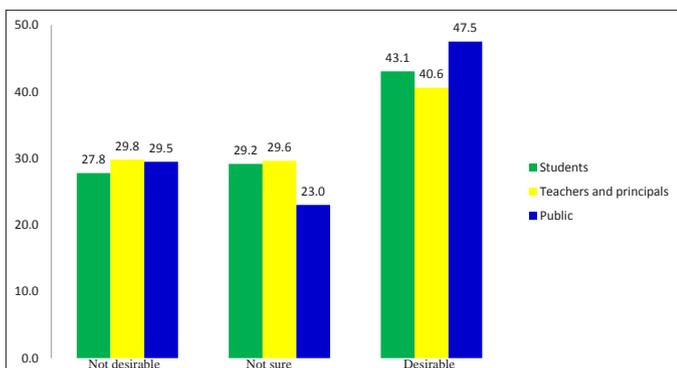


Figure 2.6: Public perception on school vacation as per the geographical location.
(Source: Education Blueprint Nationwide Consultation)

The school curriculum is to be delivered in a minimum of 180 instructional days in an academic year between 990 hours to 1080 hours in schools. In comparison to OECD average³, children spend less time in schools. In terms of instructional hours, English, Dzongkha and Mathematics are given more time than science and humanities. A DCRD Report 2012 revealed that schools that followed seven periods of 50 minutes were able to achieve the instructional hours required per academic year for each subject, effectively. However, lot of extra classes are taken especially in grade X and XII indicating that the curriculum is heavy and not delivered within the instructional days, although the survey findings did not indicate so.

Recommended Intervention

- Review the school vacation time based on geographical locations, number of instructional days and time allocated for different subjects.
- Review curriculum on heaviness of content.

Teaching Learning Materials

Textbooks are one form of teaching learning materials. They are the immediate reference to knowledge, skills and values. Schools generally express problems related to the quality of the textbooks and other teaching learning materials in terms of content, paper quality and colour and also issues related to adequate and timely supply.

The emerging national and student aspirations, demand that the contents of the textbooks are designed to explicitly bring out the elements of Educating for GNH²⁴, and international themes of global awareness, financial, economic, business and entrepreneurial skills, civic literacy, health literacy and environment literacy. Textbooks also should foster the development of critical thinking, communication, collaboration and creativity. They should contain the vision and aspirations of the nation. Relentless efforts are required to streamline the supply process to enable all schools to receive all resources adequately and on time.

Recommended Intervention

- The quality of textbooks to be checked and monitored by the Ministry.
- Streamline the supply of teaching and learning resources.

Student Assessment

Student assessment is of paramount importance to measure student learning. “Whatever the formal curriculum says, whatever teachers are taught to do in grade, whatever it is that students want to learn, the paramount determiner of what is taught, how it is taught, and what is learned is what is assessed”²¹. Systems are in place for continuous formative assessment; continuous summative assessment, term-end and year-end examinations, and the high-stake grade X and grade XII examinations. Although the survey findings showed that the assessment system is relevant and holistic, a study conducted by BCSEA in 2013⁵ on the overall assessment practices in the schools pointed out major flaws in the school based

assessment system. This is a serious concern and must be addressed urgently.

The practice of assessment mode prescribed for each subject, need of trial examination for grade X and XII, preparation of question papers for the term end summative examinations both for school level and national level, discrepancy in the marks obtained by candidates during BCSE examinations and the school level marks in grade X, conduct of science practical for all grades either as part of a lesson or as prescribed experiment, are areas that require intervention and support.

Recommended Intervention

- The assessment system should be revamped to institutionalise CFA, elevate the CSA and SA both at school level and high stake level to competency based assessment.

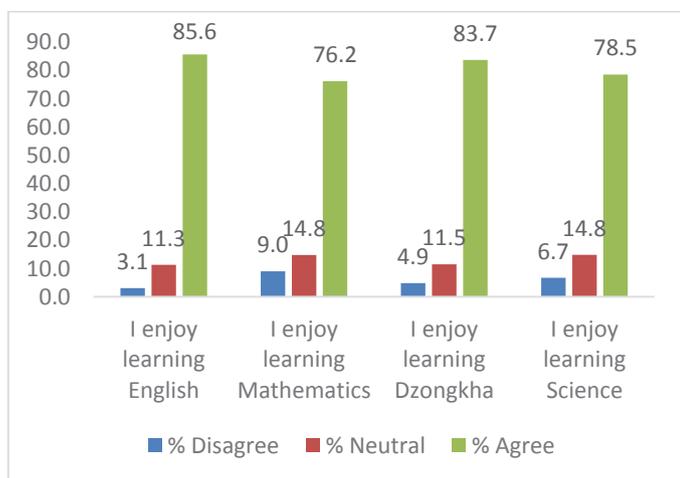


Figure 2.7 Student perception in learning different subjects

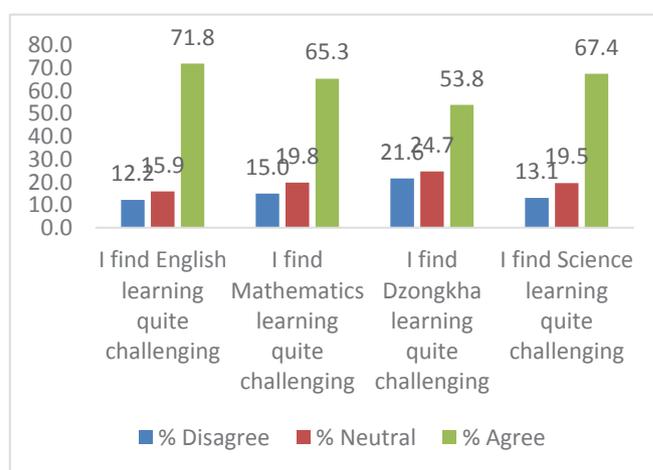
Language curriculum

The revised English curriculum intended to raise the standards of the communication skills of the students is yet to see its intended results. The survey findings showed that students generally enjoyed learning languages (both English and Dzongkha), however, they find it quite challenging (Figure 2.7)

Some of the reasons expressed in various other forums for students having difficulty in language learning,

especially English were:

- Rural students face more difficulties in understanding and relating to the stories that have foreign content, thus leading to achievement gaps.
- The academic environment and incentive, the intellectual stimulus as part of school culture affects language learning. Teaching subjects other than Dzongkha in a mixed language using English and Dzongkha or other dialects does not provide a positive stimulus for the development of English.



- Media, especially television, is a powerful agent that affects language learning. A recent study²² showed that children watching cartoons in Hindi have low levels of language acquisition in Dzongkha, English or mother tongue.
- The new English curriculum calls for adopting a number of strategies for continuous formative assessment and continuous summative assessment in all listening, speaking, reading and writing skills. These assessments are not carried out as expected.

Recommended Interventions

- Textbooks and teachers guides should be revised to sort out issues related to the composition of foreign content and local content.
- School culture should provide the intellectual ambiance for the development of English language.

Mathematics and Science Curriculum

Mathematics is generally a subject not many are keen to embrace and learn. Similar to language, while students generally enjoyed learning mathematics, they find it challenging to learn (refer Figure 2.7). There are few areas that require to be addressed in the content, like trigonometry and set theory in grade IX and X. The bigger concern however, is on the capacity building of the teachers.

There is a general appreciation that the textbooks are wonderfully designed with few areas that need to be corrected. However, Grade III Mathematics textbook is observed to be very heavily language laden and students are not able to comprehend the language. It requires to be written commensurate to the language competency of the learners.

The assessment focuses on formative assessment through a number of suggested strategies. Chapter end tests are required to be carried out that would add on to the continuous summative assessment. Questions are supposed to test higher ordered thinking skills and understanding of concepts. Teachers do prepare blueprint to develop question papers, however the questions do not really match up to the desired level of thinking. The BCSE and BHSEC examinations follow a structured model of developing test items. However, the test items are not commensurate to the intentions.

In Science, students still share that they enjoy learning science but find it challenging (Figure 2.7). The challenges teachers face is in teaching grade IV to VI mainly because they are general teachers some of whom have science background while some are not. Ensuring continuous professional development

and other resources is required for successful implementation of the curriculum. Science laboratory facilities in the primary schools should be up scaled with experimental learning methods to generate interest in science from young age.

Recommended Interventions

- Professional development of in-service teachers should be carried out continuously.
- Modules for the pre-service training should adopt contemporary pedagogies on teaching learning of mathematics.

Social Sciences Curriculum

The social sciences curricula have been revised to incorporate few changes however no major revisions have taken place especially in History and Geography Curricula. The Economics curriculum has been revised and implemented in grade IX and X. The accountancy curriculum adapted from the ISC curriculum is also revised by removing obsolete content and information. Strong observations on the need to reform the History, Geography curriculum and rewriting the textbooks for these subjects, were expressed during the consultations.

Recommended Intervention

- Reform History and Geography curriculum.

2.2.3 Principal

School leaders matter for school success. Numerous study over the past three decades link high quality leadership with positive school outcome²³. It is confirmed that replacing an average principal with outstanding one can improve outcomes by up to 20 percentile point as exhibited³⁸ in Figure 2.8 on the next page.

The following sections deliberate on the current situation and challenges principals face in being effective instructional leaders. Policy interventions are suggested to improve principal efficiency in conducting their instructional roles.

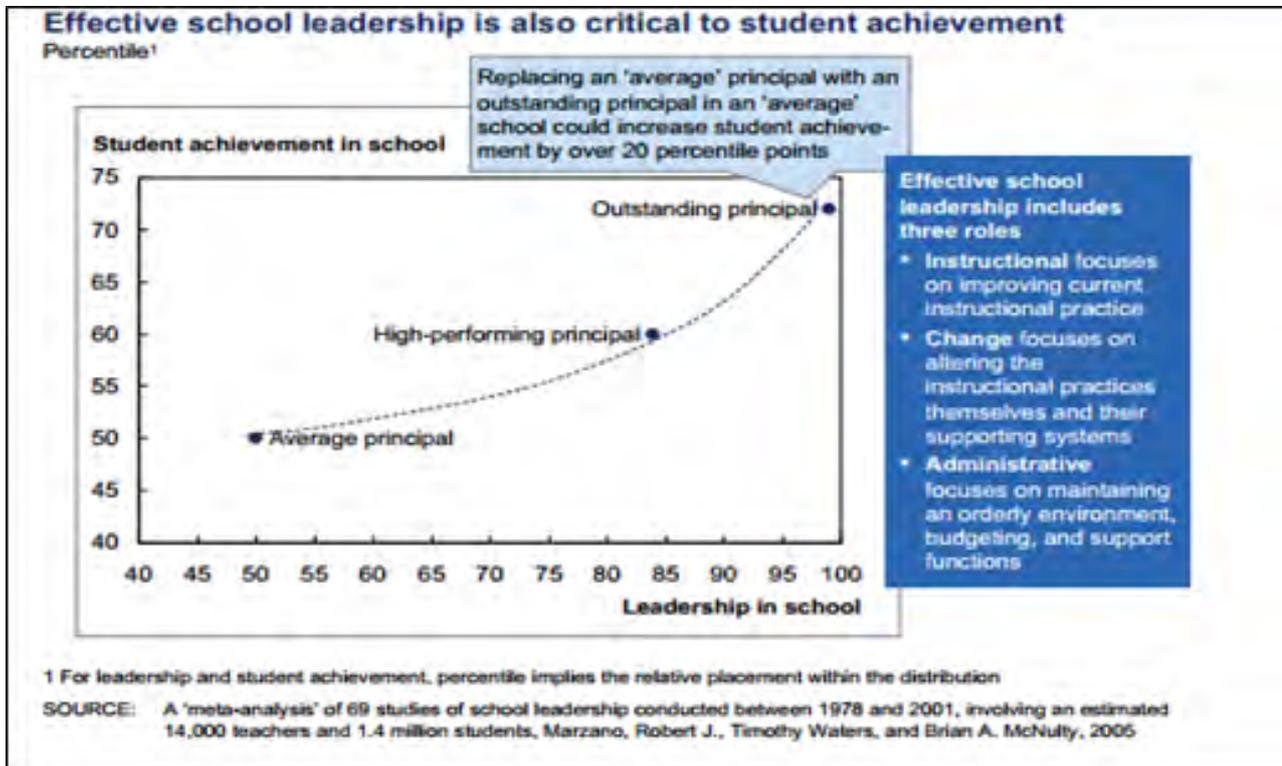


Figure 2.8 Relationship between Principal performance and student achievement.

Selection and Recruitment

The selection and recruitment of principals is based on the Bhutan Civil Service Rule (BCSR). Although the policy is driven towards recruiting the most qualified and capable candidate, the public during the FGDs raised concern on the selection process. The public expressed a need to review the selection process to include a provision for feedback from teachers and staff from their respective schools. They also mentioned that the present selection gives high weighting to tenure thus, disabling young and competent teachers from participating in the interview.

Since school performance depends on the leadership of the principal, most capable and competent teachers with right attitude must be recruited and therefore, the selection of principal must be stringent and effective.

Recommended Intervention

- Review the current principal selection criteria and process.

Professional Development (PD) programmes

Research has shown that principals need adequate training prior to appointment and continued professional support throughout their service, particularly on the key dimension of instructional leadership. This is particularly true for the first three years which is the most critical years for the formation of principal's leadership style and skills³⁸.

Currently, the preparatory and induction training for new principals and onward professional development programmes depend on the availability of fund. The survey findings indicated that 58 percent of the principals received induction programmes as novice principal but only 73 percent of the principals have availed PD programmes in the last three years. Figure 2.9 on the next page indicates that PD programmes generally have benefitted principals immensely in enhancing instructional leadership and management skills, communication and ICT skills. Therefore, principals must be given intensive induction and

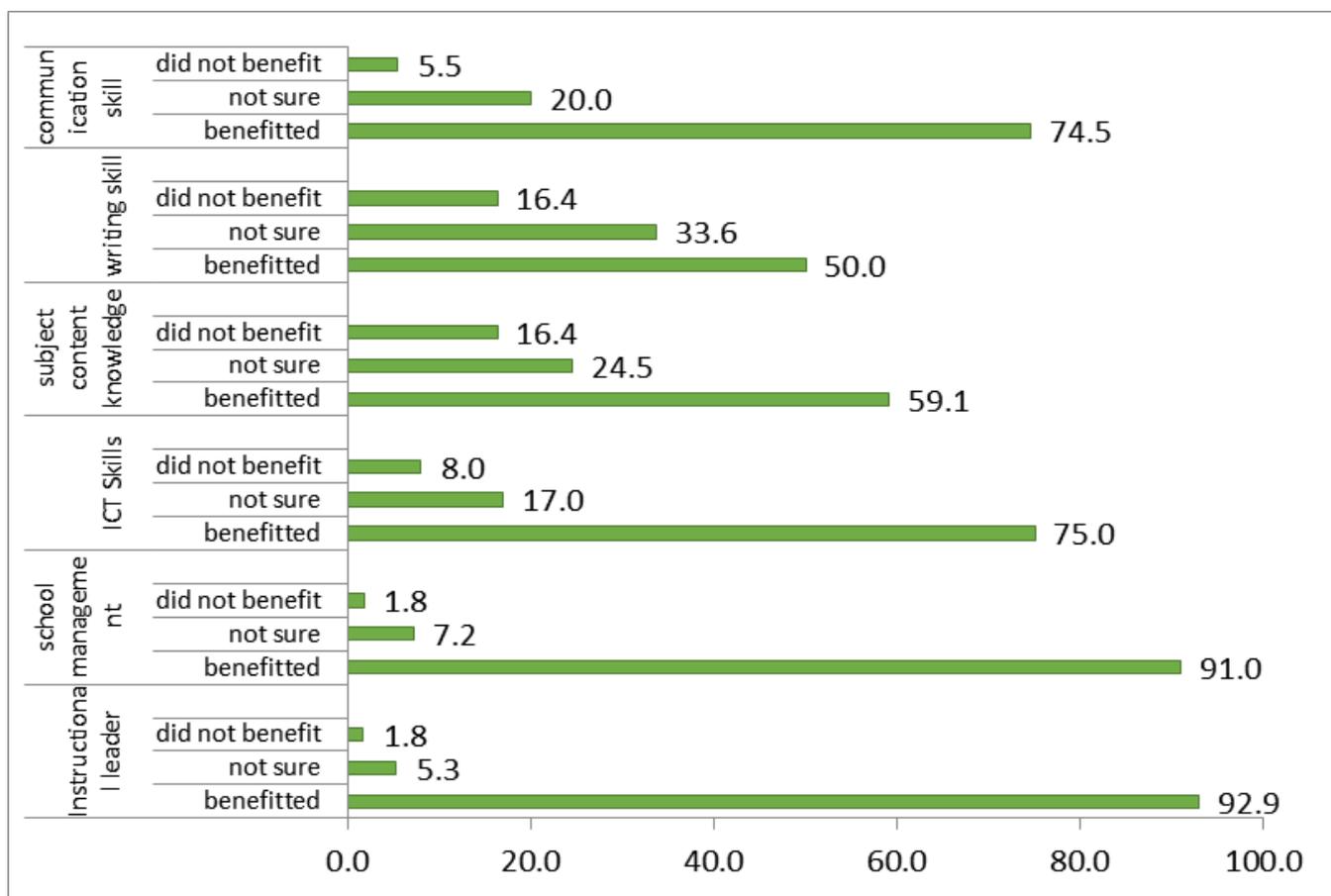


Figure 2.9 Principals' perception on the impact of PD programmes
(Source: Education Blueprint Nationwide Consultation)

continuous PD programmes to make them effective leaders in the school.

Recommended Intervention

- Institutionalize effective induction and continuous PD programmes for principals

Instructional Leadership

Principals' personal attributes and initiative enable schools to perform well despite steep challenges. The survey for the Blueprint identifies 'leadership quality of the principal, teacher competency, teacher accountability and values in education' as areas that need immediate attention to improve the overall quality of education as seen in Figure 2.10.

Further, teachers who participated in the focus group discussions shared the principals' inability to mentor teachers due to heavy administrative responsibilities and lack of autonomy.⁵⁴ Acknowledging the importance of school autonomy for principals to improve efficiency in providing quality education, 19 public schools were identified as pilot autonomous schools in 2014. A report on the review of autonomous schools revealed that schools are performing better as a result of prompt decision making, raising fund, prioritizing budget and resources that support teaching and learning.

Recommended Intervention

- Provide autonomous status to greater number of schools.

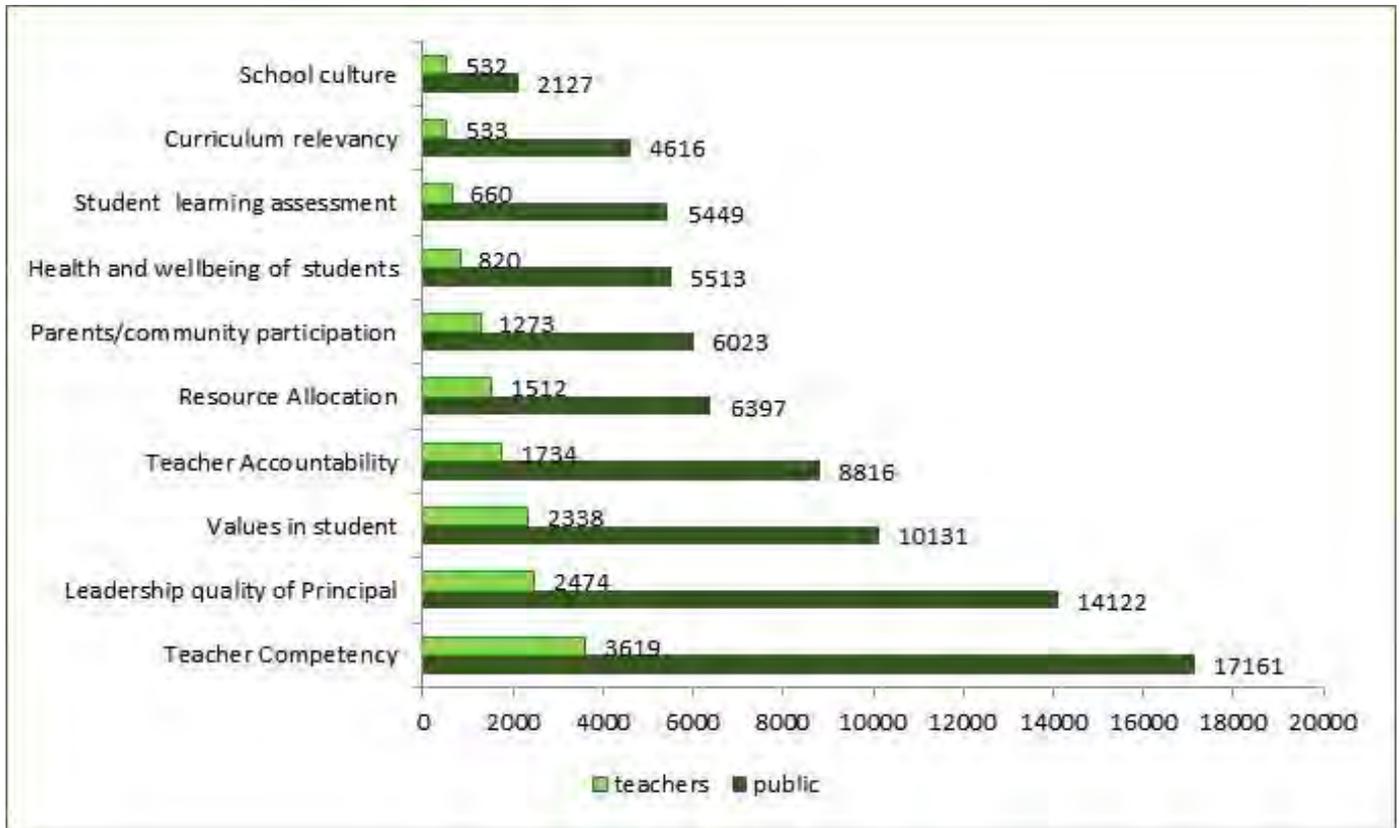


Figure 2.10 Areas that need immediate attention to improve the overall education quality
(Source: Education Blueprint Nationwide Consultation)

2.2.3 Teacher

The draft National Education Policy articulates, ‘a teacher ought to find himself or herself securely inside the Triangle Noble – endowed with a deep love of children, an abiding passion for knowledge, and firm conviction of the importance of education as an instrument of empowerment’²⁷

Selection and Recruitment

In the top performing education system such as Finland, South Korea and Singapore the entry to teacher training is highly selective with interviews and tests as selection mechanisms.⁴⁶ Teachers in these systems are recruited from amongst the top 30 percent of the graduates. Research on teacher quality in Bhutan indicated that low academic and professional standards for entry into teaching are the

major constraints in the system which affects students’ performance.⁵⁴

In Bhutan, grade XII graduates are selected for admission to the two Colleges of Education based on merit ranking. The top percentage of each cohort of grade XII graduates is first selected for ex-country scholarships to pursue professional courses. The next cohorts of the student are selected for in-country scholarship to pursue higher studies. It has been observed that generally, teaching is the last choice for most of the grade XII graduates. However, there are also undergraduate students who pass the Bhutan Civil Service Examination join the Colleges of Education to pursue a yearlong Post Graduate Diploma in Education on their choice. The public expressed views that quality of education could be improved if the entry academic qualification is raised to that of Bachelor’s degree.

In addition to the academic requirements, teachers must also possess a set of attributes which are very essential in teaching such as a deep love for children, strong interpersonal and communication skills, willingness to learn and the motivation to teach.¹ Currently, the academic dependent selection criteria of teacher candidates does not take into account the personal attributes and other essential attributes of teachers.

Recommended Interventions

- Review the recruitment criteria to select from among top 30 percent of grade XII graduates and gradually advance towards recruiting from among top 30 percent of university graduates who possess attributes of a teacher.
- Conduct rigorous face to face interviews to test teacher attributes such as love for children, strong interpersonal and communication skills, a willingness to learn and the motivation to teach through use of standard instrument.

Pre-service Teacher Preparation

Public at the consultations expressed that teachers are inadequately prepared in the Colleges of Education to face classroom situations. This remark aligns with findings from studies done by REC⁵⁵:

- The current teacher preparation programme is challenged by the sheer demand for teachers and is concurrently criticized for producing graduates of mediocre quality.
- There is absolute disconnect between theory and practice given the short duration of the teaching practicum, the irrelevancy of electives and lack of challenge, inadequate coaching and mentoring from a competent associate teacher, and the lack of constructive feedback on the numerous lesson plans developed during the programme.
- It is observed that lecture method of teaching is predominant in the Colleges of Education and the timetable is highly structured with no scope for the students to be reflective practitioners. As a result the teacher education system, suffers from

a pervading culture of passivity, undermining the development of professionalism.⁴⁹

The above findings, point for the Colleges of Education to restructure and reform their programmes.

Recommended Interventions

- Restructure the teacher training programmes.
- Strengthen collaboration between the Colleges of Education and Schools.

Teacher Competency

The nationwide consultations indicated concerns on the subject and English language competency of teachers. A study on English medium Education in Bhutan²² revealed students not attaining control over English at desired levels of schooling; classroom practices favour didactic teaching-learning approaches; teachers tend to teach toward terminal examinations and adhere to traditional teacher and student roles; and subject teachers do not consistently support students English language development.

TNA, 2012⁴⁸ revealed inaccurate language in the essays written by teachers although the essays had rich ideas. Studies also found that English teachers needed more help in teaching grammar.¹⁴ Further, a study revealed that while teachers believed in constructivism, they are generally accustomed to procedural/ mechanical teaching rather than teaching for genuine understanding. Similarly, it also indicated that teachers' 'misconceptions / common errors are getting passed on to students. Many teachers lack basic familiarity with some fundamental concepts and ideas necessary for a clear understanding of the Social Sciences.⁴⁷ The public and teacher survey revealed that teacher competency needs immediate attention to improve education quality (Figure 2.10).

Therefore, there is an urgent need to enhance teacher competency to improve quality of education.

Recommended Intervention

- Set a benchmark to enhance teacher competency in English language.

- Set benchmark to enhance subject content knowledge in respective teaching subjects.
- Institute forums to promote teachers engagement in research and seminars.

In-service Teacher Preparation

In-service PD programmes are generally provided to teachers through different categories of PD programmes. The nationwide survey findings indicated a need for Bhutanese teachers to enhance their competency. 95 percent of the teachers responded that professional development was one

of most important factors that contribute to teacher quality (Figure 2.11).

The Teachers’ Job Satisfaction Study⁵⁰ revealed teachers’ preference to attend NBIPs and DBIPs due to the value attached to the certificates awarded and the facilitation by experienced and competent facilitators. The cascading model of providing PD programmes indicate a dilution of programmes, when a week long NBIP gets reduced to an hour long PD at the school level. The EMSSD report further confirms that SBIPs have not been effective due to lack of budget, manpower, time, and other resources.⁵⁰ At present, PD programmes is subject to availability of funds.

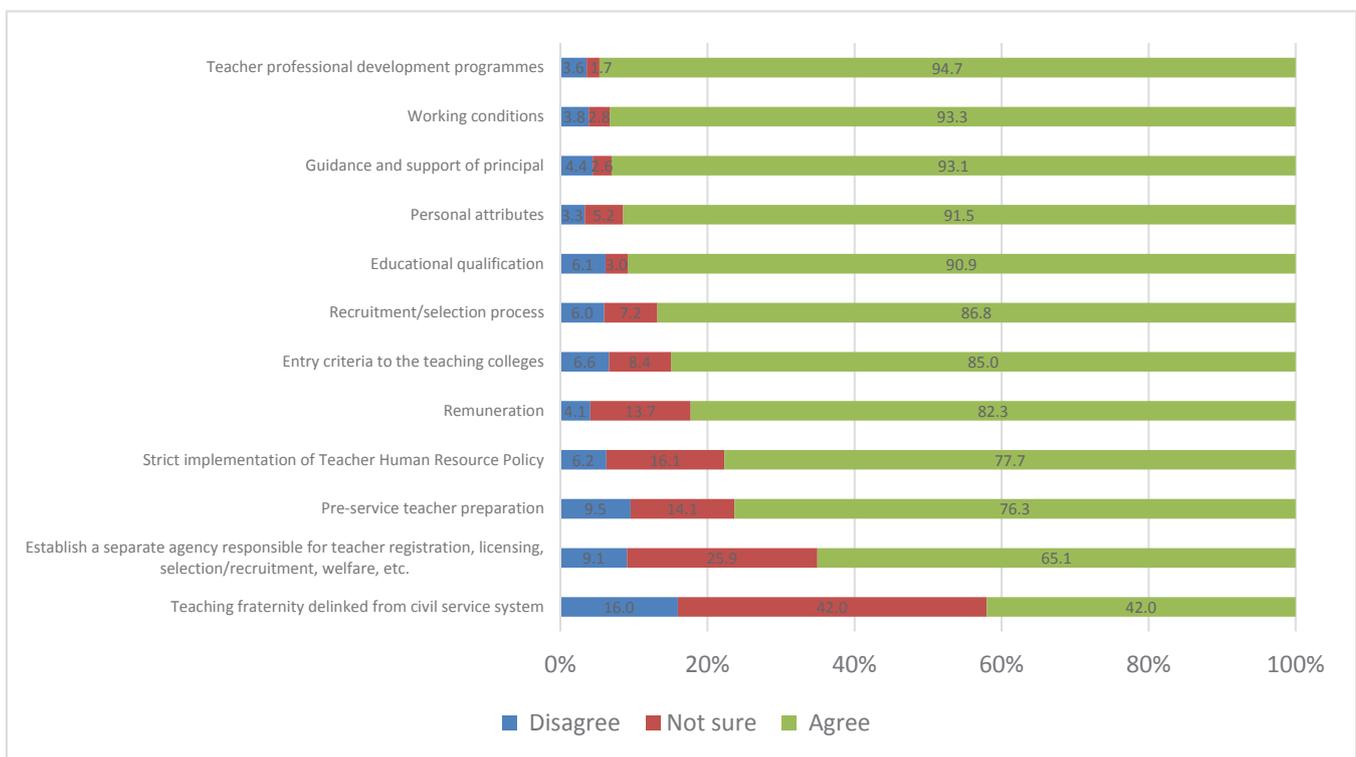


Figure 2.11 Teachers’ perception on factors contributing to teacher quality
(Source: Education Blueprint Nationwide Consultation)

The teachers at the focus group discussions reported lack of transparency in nomination and selection of teachers for NBIPs. Teachers also expressed need for more relevant PD programmes. Owing to the importance of professional development for teachers, MoE has mandated every teacher to receive a minimum of 80 hours of PD in a year.¹¹ However, teachers expressed difficulty to attain 80 hours of PD a year.¹⁸ and often in attempting to fulfil the requirement, schools conduct SBIPs that tend to qualify by numbers compromising on the quality.

The nationwide survey found that a majority of teachers have availed only SBIPs in the last three years (Fig. 2.12); only 31 percent of teachers have attended in-service workshops and training organized at the national level.⁴² It has also been indicated in ‘Teachers’ Job Satisfaction in Bhutan’⁵⁰ and the nationwide consultations that there is a content dilution from NBIPs to SBIPs due to time and resource constraints. Given the large number of teachers, the PD programmes provided as of 2014 are

not proportionate to the overall teacher strength.

In the nationwide survey 66 percent of teachers and 51.7 percent of the public recommended Saturdays be dedicated for teacher professional development as shown in Figure 2.13.

Recommended Interventions

- Establish PD division in accordance with the Teacher HR Policy and INSET Master Plan.
- Conduct relevant and continuous PD programmes.
- Maintain database of teachers availing PD programmes.
- Allocate separate budget for PD programmes.
- Saturdays to be dedicated only for PD programmes for teachers and other school activities.

Teacher Morale and Motivation

Teacher Job Satisfaction Study²⁰ revealed that although intrinsic factors such as student achievement and opportunity to learn and grow motivate teachers,

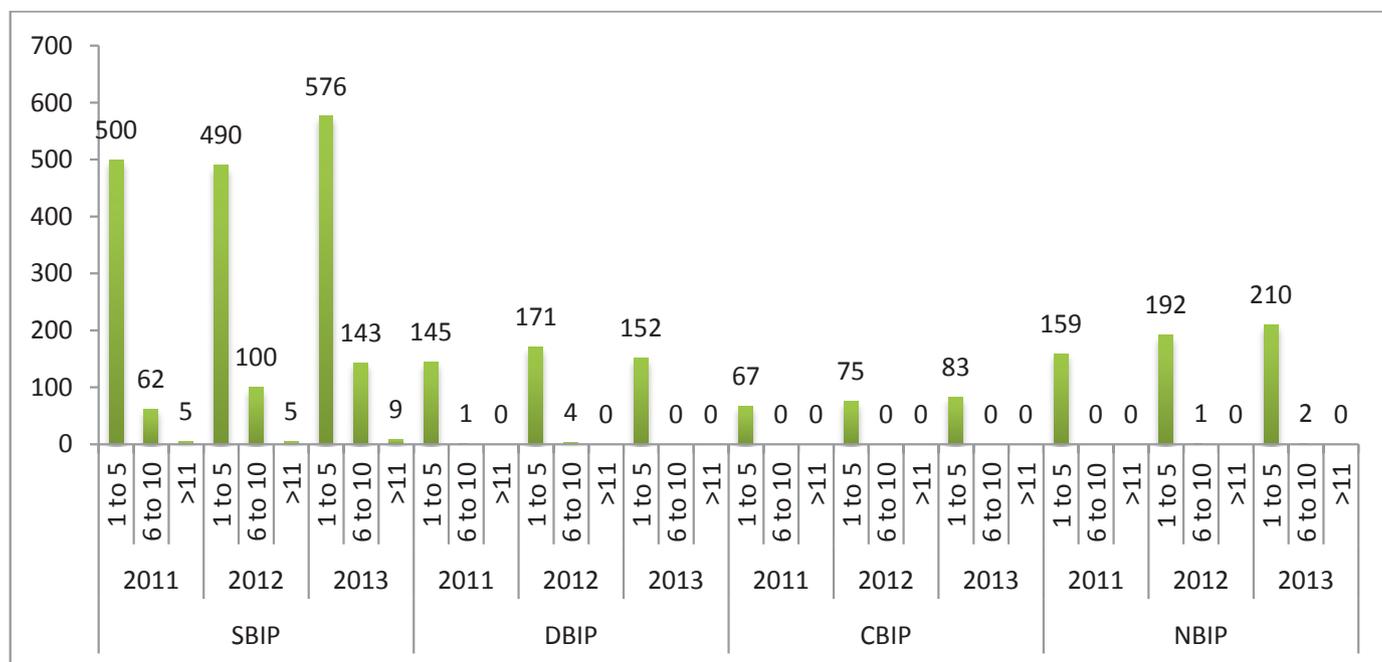


Figure 2.12 Number of PD programmes attended by teachers in the last 3 years
(Source: Education Blueprint Nationwide Consultation)

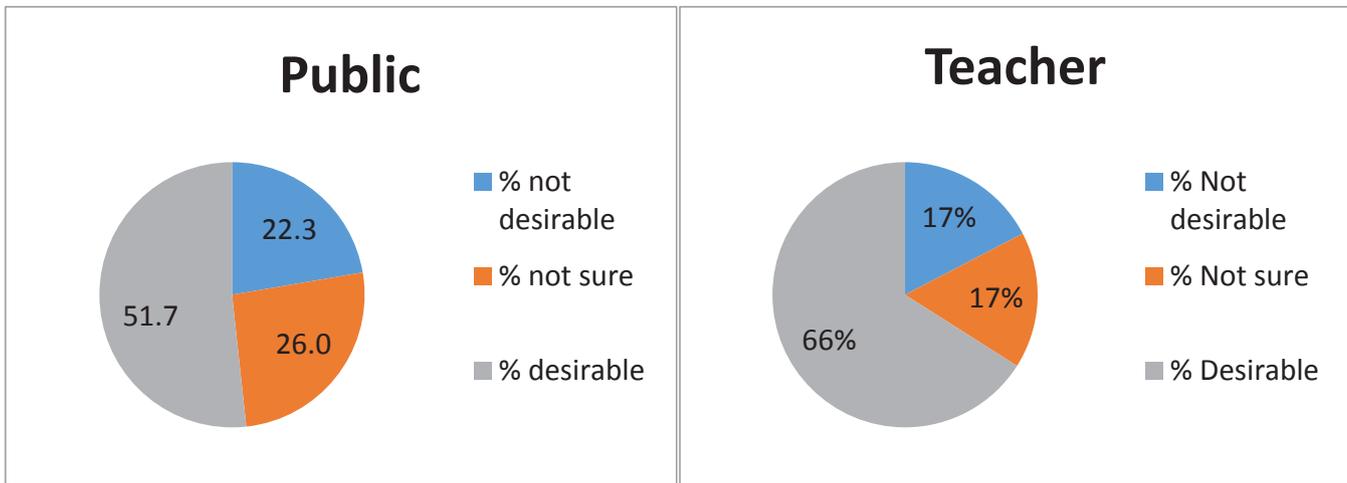


Figure 2.13 Public and teacher perceptions on dedicating Saturdays for PD programmes
(Source: Education Blueprint Nationwide Consultation)

extrinsic factors such as poor working conditions and disproportionate remunerations affect their morale and motivation. Involvement of teachers in non-academic responsibilities seems to dilute the status of the profession and thus affect teacher morale. Teachers' Job Satisfaction in Bhutan⁵⁰ recommends good starting salaries in comparison to other profession to attract high performing university graduates into the teaching profession. The same study also recommends raising the entrance position of the teachers from position P5 to P4.

During the focus group discussions, teachers expressed that poor working environment and conditions, limited access to the internet, printers, computers and fax and lack of proper accommodation affect their motivation level. Teachers in remote schools who occupy government quarters expressed unfairness in the housing allowance policy considering the poor condition of government quarters in the remote schools. Limited or no flexibility in school systems to accommodate personal and domestic inconveniences in times of serious domestic problems also tends to affect teacher morale.

Recognizing the importance of teachers and principals a national award system was initiated in 2012 and also launched the Teacher Human Resource Policy²⁸ in 2014 to streamline the recruitment and retention and

professional development of teachers and principals.

Recommended Interventions

- Revise teacher pay package to attract, and retain qualified and high performing teachers.
- Stringent implementation of Teacher HR policy to ensure performance-based culture, reward and recognition to teachers.

Teacher Shortage

As per AES, 2014, the national student- teacher ratio is 20:1; however, there is teacher shortage at Primary level in subjects like Dzongkha, Science, Health and Physical Education, Geography, History, Information Technology and Mathematics.⁴⁵

Teacher shortage in the country is attributed to the following reasons:

Improper teacher deployment is one of the reasons for teacher shortage in the country. Rural schools suffer from shortage of teachers leading to multi-grade teaching by inexperienced teachers. On the contrary, urban schools have high student-teacher ratio which impedes effective teaching and learning. Existence of small schools in the remote corners of the country is one of the factors leading to teacher shortage.

The public consultations indicated that competent

and experienced teachers mostly were found in urban schools, whereas new teachers with minimal experienced were posted in rural schools. Public at the consultations have also questioned the competency of the contract teachers and the teachers who were deployed without proper training in teaching.

Between 2013 and 2014, 179 teachers, or roughly 2 percent of the total teachers in the government schools have left the teaching profession.⁴² Although, the percentage has gone down by two percent from the previous year, public at the consultations expressed concern on qualified and experienced teachers leaving the system. It has also been observed that there are frequent teacher transfers in schools which affect the smooth functioning of schools, especially in teaching and learning.

Recommended Interventions

- Implement Teacher HR Policy to improve teacher deployment.
- Recruit professionals for extra-curricular activities

in schools.

- Establish Teacher Council for teachers' redressal, welfare, certification and licensing.

2.2.4 Fostering a Healthy, Safe, and Supportive Learning Environment

School feeding and nutrition

Access to nutritious food is essential for the proper development and functioning of children and adults. A hungry child cannot concentrate on study, loses the desire to play and lacks the energy for any physical and mental activity.

The School Feeding Programme (SFP) which is a collaboration between the WFP and the RGOB for the past 40 years has helped increase enrolment and attendance rates, reduced the dropout rates, helped improve the short term nutritional status of school going children³² besides enabling generations of Bhutanese students attain education and realize their potentials.

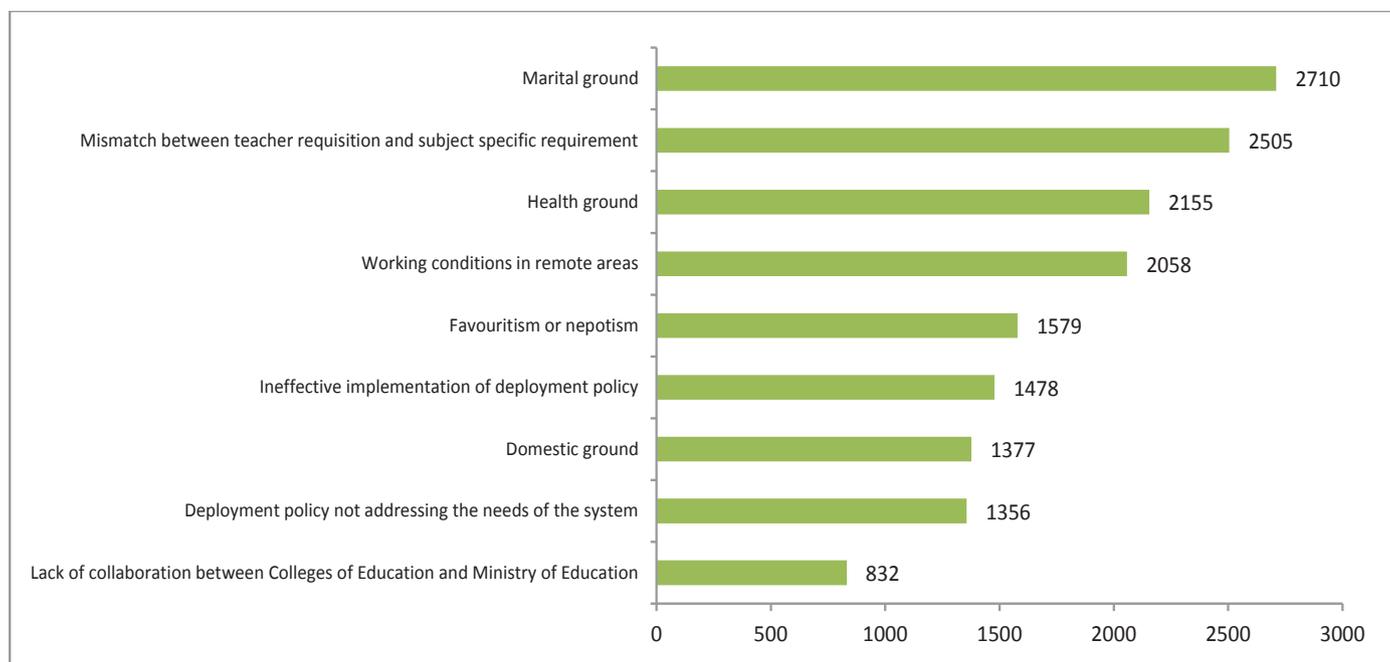


Figure 2.14 Reasons for teacher deployment issue as per the teachers and principal
(Source: Education Blueprint Nationwide Consultation)

As of 2014, there are 51,886 students benefiting from the SFP of which 33,131 students are boarders and 18,755 are day feeding students (Fig. 2.15). Following recent reports of serious nutrient deficient health problems in three schools with SFP, the government revised the monthly stipend from Nu.700 to Nu.1000 per student in 2012, while in 2014 the revised stipend was streamlined for use for food alone. The establishment of 24 pilot Central Schools (CS) in the country by 2015 will not only double the number of students availing the SFP but the challenge will only continue to rise in the following years. As WFP is scheduled to withdraw from Bhutan by end of 2018, the SFP will need to be solely supported by the Government. In the next four years as WFP transitions towards its withdrawal, the government will have to explore sustainable means to support the SFP to ensure the educational continuity and attainment of students.

A recent meeting of stakeholders involved in the school feeding discovered that an overall policy level school feeding is not mentioned as such in the National Poverty Reduction Strategy. The importance of school feeding is overall recognized as evidenced

by the mention of school feeding in the Food and Nutrition Security Policy, National Education Policy and the Cabinet’s written instructions to strengthen the national school feeding programme, but a comprehensive school feeding policy is not yet established. As the SFP becomes national, a stable and independent funding source to ensure sustainability and quality of the programme need to be put in place at the earliest.

Recommended Interventions

- Develop and implement a school feeding policy to ensure sustainability and quality.
- Enhance the knowledge and skills of school mess coordinator and cooks to ensure that students have access to nutritional food.
- Conduct regular monitoring of the feeding in schools to provide necessary support.
- Strengthen School Agriculture Programme to supplement the feeding programme in schools through use of government barren land or private land on lease.

Level	WFP Day Students			WFP Boarders			RGoB Stipend			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
HSS				33	28	61	5577	5034	10611	5610	5062	10672
MSS	294	286	580	825	789	1614	4653	4839	9492	5772	5914	11686
LSS	2620	2818	5438	2414	2317	4731	1017	1108	2125	6051	6243	12294
PS	6339	6330	12669	2305	2192	4497				8644	8522	17166
ECRS	35	33	68							35	33	68
Total	9288	9467	18755	5577	5326	10903	11247	10981	22228	26112	25774	51886

Figure 2.15 WFP support and Government stipend boarders and day students, 2014

(Source: Annual Education Statistics, 2014)

Health and Well-Being

Sanitation is the provision of facilities and services for the safe disposal of human wastes. The lack of access to adequate sanitation facilities can cause diseases most commonly diarrhoea from contamination with faecal matter increasing child mortality rates.³² Safe, adequate water and sanitation facilities in schools coupled with hygiene education will have a significant positive impact in schools, both on child health and on education outcomes.

As of 2014, 90 percent of the schools in the country have access to piped water supply and protected spring while 10 percent still access unprotected water sources. 92 percent of all schools have sufficient water for drinking but only 60 percent of the schools have sufficient water for bathing. Some schools visited during the field survey were found to have started harvesting rain water for sanitation purposes, but it was found to be useful only during the monsoon seasons. AES (2014) reports insufficient water for sanitation in 28 percent of schools while the LSS and MSS did not meet the national standard of student to tap ratio of 1:50.⁴²

Although all schools in the country have basic toilets, toilet for girls in lower and middle secondary schools seems not to meet the national standard of 1 toilet compartment for every 25 girls. As revealed in the AES (2014) reports and confirmed by public consultations, more than 30 percent of toilets in schools being non-functional. The public strongly expressed need for functional toilets with enough water for sanitation. There seems to be a need for a dedicated cleaner employed to maintain the cleanliness and usability of the toilets in all schools.

Public consultations revealed inadequate health care services in schools to provide timely treatment and education on personal health care to students. Although schools have health coordinators, only 60 percent of the schools have trained school health coordinators whose primary responsibility is to promote hygiene and not providing clinical treatment. A system of school visits by health-workers to conduct regular check-up exists but schedules for such check-

ups are not as regular to diagnose illnesses or provide timely treatment. The Central Schools that will be established by 2015 need to ensure that trained health professionals and a full time well trained counsellor be recruited for each school to cater to the physical and psychological needs of the students. In the meantime the other remaining schools need to be provided adequate support by improving coordination between schools and health care centres and by upgrading the knowledge and skills of the school health coordinators.

Recommended Interventions

- Strengthen Comprehensive School Health Programme with special focus on parenting education.
- Enhance knowledge and skills of current school head coordinators through rigorous training and proper support.
- Strengthen coordination between schools and the health care centres to improve the regularity of health services to schools.
- Increase and improve the school water and sanitation facilities with special focus on the girl child.

School Safety: Safe School Safe Youth

Students and teachers deserve all forms of safety and security while at school and most of all students need caring adults who create an atmosphere of sincere support for their well-being and academic success. School environments are educational environments and they must be safe, healthy and protective, endowed with trained teachers, adequate resources and appropriate physical, emotional and social conditions for learning.⁶⁶

Even though schools are densely populated places, with many small children, schools generally have paid attention to physical safety and very less to social and emotional safety of teachers and children. It has been proven time and again that during disasters schools and school children are the most affected. The earthquake which rocked eastern Bhutan in 2009 damaged 117 schools, affecting the life and education

of students and teachers in those schools.

Safety in the Environment

The physical environment of a school encompasses the school building and all its contents including physical structures, infrastructure, furniture, and the use and presence of chemicals and biological agents; the site on which a school is located; and the surrounding environment including the air, water, and materials with which children may come into contact, as well as nearby land uses, road ways and other hazards.⁶² All children and teachers should feel safe from physical harm for living, learning and working in the school. A healthy school environment can directly improve children’s health and effective learning and thereby contribute to the development of healthy adults as skilled and productive members of society. Therefore, schools can make reference to the components of a healthy school environment given in Figure 2.16 to review and reinforce the school safety standards to ensure that children and school personnel are protected from risks and injuries.

Provision of basic necessities	Shelter, Warmth, Water, Food, Light, Ventilation, Sanitary facilities, Emergency medical care
Protection from biological threats	Moulds, Unsafe or insufficient water, Unsafe food, Vector-borne diseases, Venomous animals, Rodents and hazardous insects, Other animals (e.g. dogs)
Protection from physical threats	Traffic and transport, Violence and crime, Injuries, Extreme heat and cold, Natural disasters, Radiation
Protection from chemical threats	Air pollution, Water pollution, Pesticides, Hazardous waste, Hazardous materials and finishes, Asbestos, paint, Cleaning agents

Figure 2.16 Components of a healthy school environment (Source: *The Physical School Environment: An Essential Element of a Health-Promoting School*)

School Culture

A school with improved and more positive culture is stronger and more capable of addressing reform efforts to improve its learning environment.⁶¹ Internationally, schools have made most use of the school culture for achieving academic excellence and

holistic development of all children.

According to the School Discipline Policy, corporal punishment is banned in schools in Bhutan, and all corrective measures should be in accordance with rules framed for the discipline of children. However, participants at the public consultations shared worries that the revised policy lightened discipline expectations of students leading to unruly behaviours in and out of school. Therefore, fostering caring relationships between adults and students as well as among peers can ensure a means of communication through which problems and issues from children can be heard for timely intervention.

Although there is no study done on the phenomenon of bullying in Bhutanese schools, bully-victim behaviour is reported to be rampant in schools, contributing to students feeling unsafe which in turn undermines their ability to learn and develop in healthy ways. Schools need to put in place rules and norms, about physical violence; verbal abuse, harassment and teasing; clear and consistent enforcement and norms for adult intervention.

Recommended Interventions

- Ensure school construction guidelines are strictly followed during the design and construction of new schools incorporating climatic conditions and green technology. Ensure timely proper assessment and maintenance of all structures.
- Schools must put in place safety rules and norms and ensure clear communication among all students, teachers and others in the school.
- Review and strengthen implementation of School Discipline Policy through proper parent education on the policy.
- Develop plans and strategies to create a vibrant school culture founded on the GNH values that will enhance academic excellence and holistic development of all children.

2.3 Equity in Education

Equity in Education

Excellence without equity risks leading to large economic and social disparities; equity at the expense of quality is a meaningless aspiration.⁶⁰ Equity in education can be seen through two dimensions: fairness and inclusion. Equitable education systems are fair and inclusive, and support the students in reaching their learning potential without either formally or informally creating barriers or lowering expectations.

2.3.1 Learning Gap

Schools in Bhutan are categorized according to their access and geographical location into Difficult (D), Very Remote (VR), Remote (R), Semi-Remote (SR), Semi-Urban (SR), and Urban (U). The ASSL⁵² revealed a significant difference in the average performance of students in Science, Mathematics and English subjects based on the access categories. Figure 2.17 illustrates the cross tabular difference by highlighting the difference among the different access

categories, student from urban areas were found to be performing at a higher level than those of all other categories. The NEA (2003 and 2011) revealed students in urban students outperforming students from all other categories in literacy and numeracy.

In terms of access to education, Bhutan stands well in comparison to many other countries. However, ASSL and NEA have shown that gender differences exist both in the academic attainment and the choice of study pursued by the students. In the ASSL (2011) where over 20,271 girls and 19,645 boys from grade 4, 6 and 8 students participated, it was observed that there was a significant difference in the performance of students based on gender as illustrated in Figure 2.18.⁵²

Engaged parents encourage more positive attitudes towards school, improve homework habits, reduce absenteeism, disengagement and dropout, and enhance academic achievement, while they take part in parent-teacher meetings and other school activities⁶⁰ regardless of economic and social constraints. Research⁶⁰ has revealed that families play a crucial role in developing the values and attitudes

S4							M4							E4						
	PVT	U	R	SU	SR	VR		PVT	U	R	SU	SR	VR		PVT	U	R	SR	SU	VR
PVT		▲*	▲*	▲*	▲*	▲*	PVT		▲*	▲*	▲*	▲*	▲*	PVT		▲*	▲*	▲*	▲*	▲*
U	▼*		▲*	▲*	▲*	▲*	U	▼*		▲*	▲*	▲*	▲*	U	▼*		▲*	▲*	▲*	▲*
R	▼*	▼*		▲*	▲*	▲*	R	▼*	▼*		▲*	▲*	▲*	R	▼*	▼		▲*	▲*	▲*
SU	▼*	▼*	▼*		▲*	▲*	SU	▼*	▼*	▼*		▲*	▲*	SR	▼*	▼*	▼*		▲*	▲*
SR	▼*	▼*	▼*	▼*		▲	SR	▼*	▼*	▼*	▼*		▲	SU	▼*	▼*	▼*	▼		▲
VR	▼*	▼*	▼*	▼*	▼		VR	▼*	▼*	▼*	▼*	▼		VR	▼*	▼*	▼*	▼	▼	

*The mean difference is significant at the 0.5 level

Legend:

- ▲* - Average achievement of category in column I is significantly higher than comparison category
- ▼* - Average achievement of category in column I is significantly lower than comparison category
- ▲ - Average achievement of category in column I is higher than comparison category, but not significant
- ▼ - Average achievement of category in column I is lower than comparison category, but not significant

Figure 2.17 Multiple Comparisons of Performance of Different School Access Categories (ASSL 2011, p. 95)

that encourage student engagement with motivation for and success in learning.

Disadvantaged children in schools are deprived of maximum parental involvement in their learning. Establishment of school community partnership needs to be reinforced to robustly contribute to the children’s learning in rural schools. Therefore, there are many different approaches to help the students perform in disadvantaged schools comparatively well as the advantaged schools in the country.

Recommended Interventions

- Create effective links among the school, parents and the community to enhance the learning environment of students in disadvantaged schools.
- Create a supportive school climate, especially in schools located in rural areas
- Provide a range of support for struggling students in disadvantaged schools (coaching and mentoring, counselling specific measures to support students in the Mathematics, Science and English as they transition to secondary schools).

2.3.2 Equity in Schools with Greater Needs (urban and rural schools)

A gap in rural and urban remains a source of concern in student’s learning achievement as shown in Figure 2.19. Fairness in resource allocation and distribution of experienced teachers is important for ensuring equity in education opportunities. In fact, most of the variations in student performance is explained by the quality of educational resources and by how those resources are used. “Teachers are the key resource in education; and how they are developed and supported throughout their careers necessarily has a strong impact on the performance of students and schools – particularly those with the greatest need.”⁶⁰

“Research into teacher preferences for schools finds that the least-favoured schools tend to be those in rural and remote settings, together with schools with higher proportions of disadvantaged children and children from ethnic and minority language backgrounds. Schools in these settings are more likely to have staff shortages, and their students tend to find themselves in classes with the least-experienced and least-qualified teachers.”⁶⁰

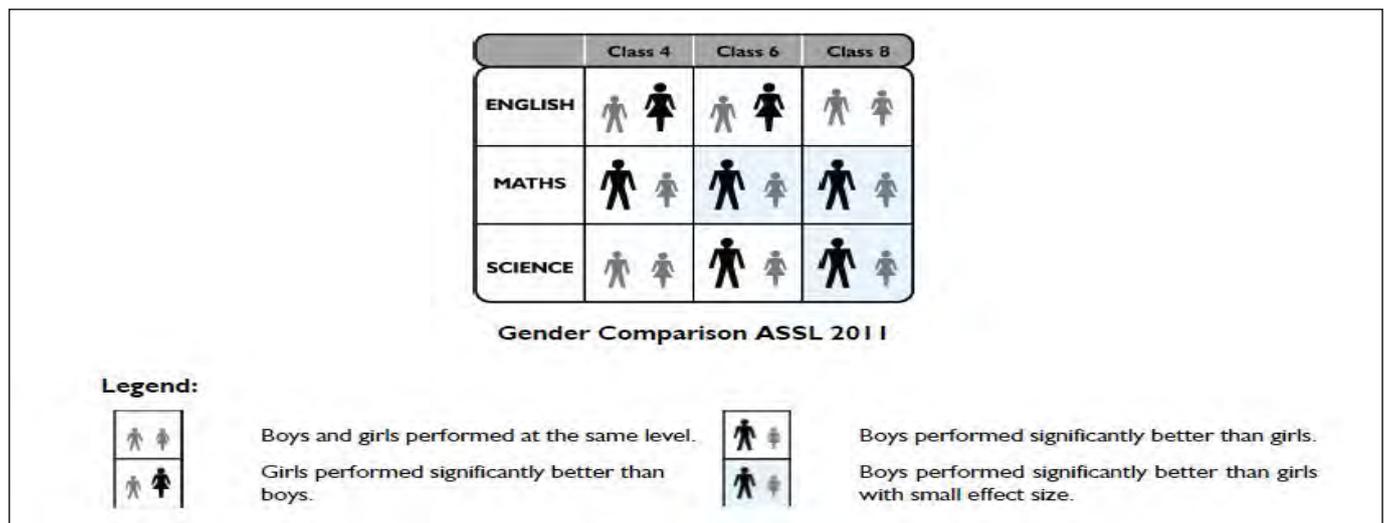


Figure 2.18 Comparison of student’s performance based on gender

According to the nationwide consultations, the public shared their concerns on systems having trouble recruiting high-quality graduates as teachers, particularly in shortage areas, and retaining them once they are deployed. To this end, the AES (2014) indicates that the CBT and NCT are mostly deployed in rural schools to address the teacher shortages.



Figure 2.19 Ways to minimize equity gaps between rural and urban schools
(Source: Education Blueprint Nationwide Consultation)

However, the turnover of NCT and CBT continue to aggravate the teacher shortage in remote and rural schools.⁴² These records show/indicates that teacher attrition is significantly higher in rural schools than the urban schools, thereby affecting student performance in rural schools.

The public and teacher survey findings show that ensuring fair distribution of experienced, dedicated and competent teachers contribute to minimizing equity gaps between rural and urban schools.

Starting strong in early education makes it easier to acquire skills and knowledge later on. For children from disadvantaged backgrounds, having access to early education not only contributes to equity, but is, in the long run, economically efficient as well. The urban ECCD centres are growing more proportionately than the government and donor funded community ECCD centres thereby increasing the equity gap in students' pre-school attainments. Students who attend pre-primary education in the early ages show significant differences in the later stages at the school level between the students in urban schools and rural schools. This relationship is noticeable as the students reach the school level. To this end, the early education should be made accessible to every individual child to

enable them to benefit of pre-school education.

Hence, identifying and assessing issues affecting the students learning are only part of the strategy; providing adequate and timely support is essential to enable these students not only to stay in school but to get the most out of their learning opportunities.

Recommended Interventions

- Improve working conditions in disadvantaged schools.
- Provide career and financial incentives to attract and retain teachers in disadvantaged schools.
- Extra resources also need to be channelled through schools to help disadvantaged students.

2.3.3 Socio-economic Status

Socio-economic differences present a major challenge to achieving equitable outcomes. Many studies done in the country and around the world indicate that parents' income and the school that students attend, correlate with student achievement. Socio-economic status (SES) is probably the most widely used contextual variable in education research. Increasingly, researchers examine educational processes, including academic achievement, in relation to socio-economic background. The relationship between the SES and student achievement indicates students from more advantaged backgrounds perform better at school. Numerous international and national studies have reported a significant association between students' socioeconomic status and their achievement at school.³⁷

In Bhutan, apart from remoteness and inaccessibility, the major cause for students' dropping out is poverty. Upgrading to the next level of school for e.g. from LSS to MSS entails relocating of students to another place which will mean costs that parents have to bear. While substantial portion of poor children (69.2 percent) were enrolled at Primary level, only a few (2.7 percent) were at the secondary level in 2007.²⁹

The national consultation surveys also found that unaffordability due to indirect cost of education is one of

the main reasons for student dropping out. Therefore, the significant differences in the performance of students from disadvantaged backgrounds – both in urban and rural areas across the country – suggest that there is much room for raising their performance as seen in Figure 2.20.

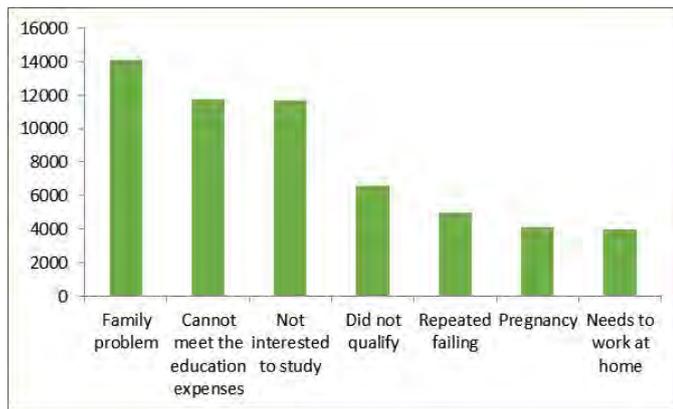


Figure 2.20 The cause of student dropout by response number.
(Source: Education Blueprint Nationwide Consultation)

There is also a growing tendency of elitism in education system. Some private schools are branded as schools for the wealthy thereby creating a distinct social strata in the society. This tendency in the education system will widen the gaps between the economically advantaged and disadvantaged communities. The stratification of communities fostered by the affordability of education is an issue that will inversely affect the equity in the education system.

Thus, differences across the country across the country which student-level factors (family structure, parents’ job status, etc.) and school-level factors (resource allocation, school location, etc.) are associated with performance and socio-economic status, showing that policies and practices impact both equity and performance.

Even though many poor students score below average on assessment tests, instructional techniques and strategies implemented at the classroom, school, district, and government levels can help close the achievement gap by providing students with necessary

assistance in order to achieve high performance in academics.

Recommended Intervention

- Implement school reform initiative (establishment of central schools, etc.).

2.3.4 Special Educational Needs

Recognizing that all human beings are born with unique gifts and abilities to contribute to the development of the nation and self, the RGoB committed to provide equal opportunity to all its citizens by endorsing the “National Policy on Special Educational Needs” (NPSEN).²⁵ Creating an equitable provision for diverse student population is a key feature of this national policy. At the centre of this lies the goal of inclusion leading ultimately to improved social cohesion.

Disability Assessment Report, 2011, revealed that at least 21.7 percent of Bhutanese children aged two to nine years have been identified to have mild to severe disability. This implies that there is more than 1 in every 5 children with disability. However, as of March 2014, there are only six integrated schools and two special education centres with 255 teachers catering to 366 children with special needs. The quantity and quality of the integrated schools and centres prevalent is less than ideal. Hence, a full-fledged Division under the Department of School Education was started as a unit in 2000 and later upgraded in 2011.

From the nationwide consultation, it was established that there is a clear need to make schools more ‘inclusive’ and ‘flexible’ to accommodate diverse learners with special focus on children with special needs. All sections of the Bhutanese people surveyed highlighted that the existing schools did not have the capacity to identify and take care of the gifted as well as the disadvantaged students. Further, 94 percent of the teachers expressed the need for professional development on teaching students with special needs (Figure 2.21), while 90 percent of the teachers indicated that they did not receive any training on teaching students with special needs (Figure 2.22).

Creating equitable provision for diverse student population is a key feature of the NPSN, 2012, with the goal of inclusion leading ultimately to improved social cohesion.

Recommended Interventions

1. Recognizing and planning for diversity
 - train teachers on teaching students with special educational needs.
 - establish teaching and learning resource centre in all mainstream and integrated schools.
2. Advocating and building partners
 - partner with RUB and other relevant agency to strengthen training on SEN.
 - encourage and support private educational institutes to deliver SEN.

2.3.5 Gender Equity in Education

The current net primary enrolment stands at 95 percent (96 percent Male and 94 percent Female) with gender parity index at 0.98. While female enrolment has increased rapidly since the 1990s, there is still a substantial gap at the tertiary level resulting in low female participation in politics, business, and the

civil service. For example, only seven percent of elected officials in the parliament and one minister are female⁶³ resulting in Bhutan ranking 130th out of 142 countries on women’s political empowerment.¹⁵

Though much has been done in terms of policy to increase female access to schooling, notably in the primary level of schooling, there are still major policy challenges to meet the demand side constraints relating to adolescent girls. This has implications for participation in secondary and tertiary schooling. The gender sensitivity of the infrastructure in terms of provision of toilet, water and better security is one that required immediate attention (AES, 2014) for female children in particular as it could be the difference between success or failure at school and in life. Similarly, from the nationwide survey and consultation, it was also noted that female students are facing immense hardships where boarding facilities are lacking and where children have to live in temporary makeshift huts built by parents.

There still exists gender gap in the country in terms of socio-economic status. Only 6.1 percent of the female labour forces have jobs as regular paid employees compared to 17.8 percent of the male labour force.

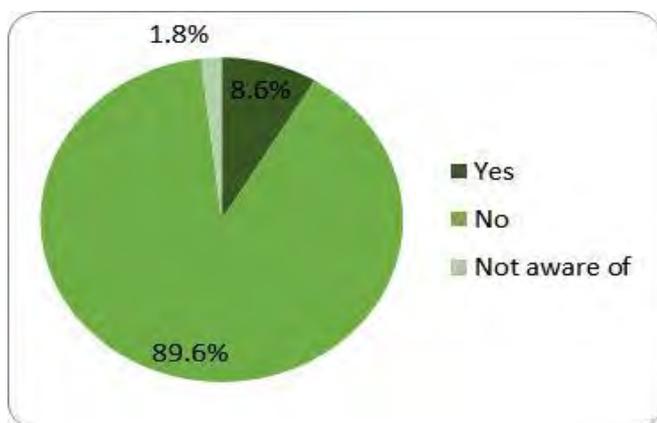


Figure 2.21 Did teachers receive training on teaching students with special needs
(Source: Education Blueprint Nationwide Consultation)

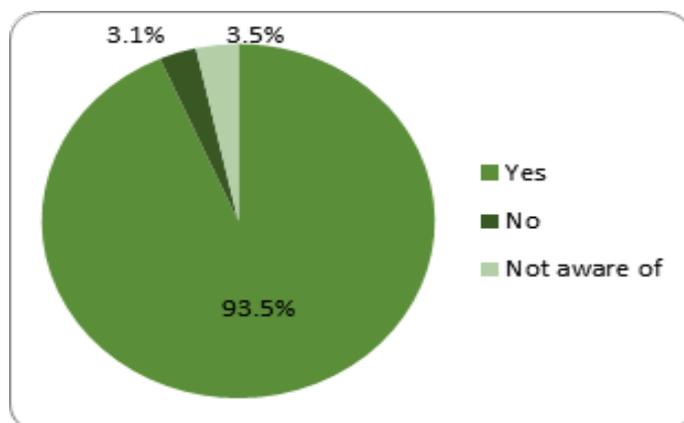


Figure 2.22 Is there a need of PD on teaching students with special needs
(Source: Education Blueprint Nationwide Consultation)

According to the Bhutan Labour Force Survey,¹⁰ women are overrepresented (81 percent of the female workforce) in unstable, unprotected, and unregulated low-paying jobs in the informal economy as street vendors, domestic workers, and subsistence farmers. Without focusing on the development of 21st century skills for girls, increasing women's participation in the formal sector will continue to be a developmental challenge.

Recommended Interventions

Strategies to bridge gender equity gaps:

- Develop plans and programmes with gender disaggregated indicators.
 - * Advocate and build partners to tackle the gender equity gaps.
 - * Introduce gender responsive budgeting
 - * Create awareness on gender mainstreaming in the policies.
 - * Improve provision of education facilities on need basis.
 - * Mandate monitoring and evaluation report to have gender disintegrated data.

2.4 System Efficiency

In order to improve access, quality, and equity of education, the education sector must work systemically. The past efforts to improve education have largely been input oriented, primarily considering additional resources such as infrastructure, facilities, and human resources. There has been limited attention given to improving efficiency of the system as a whole. An education system may be called efficient when it attains the maximum level of results for a given level of investment. Achieving such efficiency requires well-coordinated organisations staffed with capable, professional and dedicated people, good information flow, a solid legal basis and authority, effective public-private partnership, and sufficient resources, to name a few. These cannot be addressed in isolation – only when these issues are tackled holistically, the system efficiency can be improved.

2.4.1 Institutional Capacity and Capability

Capacity and capability building are related to the organizational and functional levels as well as to individuals, groups and institutions. Therefore, it is defined as, the empowerment which encompasses the ability, will and skills to initiate, plan, manage, undertake, organize, budget, monitor/supervise and evaluate project activities.

The efficiency of the ministry depends on the capacity of its human resources. Focus group discussions with the ministry officials confirmed that, the ministry is faced with the challenge of human resource capacity and proficiency, and high staff attrition.

Research⁵⁴ indicates that policy formulation and implementation is categorized by top-down commands to initiate policies without dialogue, constraining control over administrators, and energy wasted in complying with administrative procedures. At the local level this is compounded by a lack of appropriate mechanisms to facilitate community involvement in the planning and management of primary education. This resulted in failed implementation of its policies and failed to produce intended results. The service providers at the local level, the Dzongkhags and schools, often do not have clear understanding of the policies.

Recommended Interventions

- Improve the Education Management Information System (EMIS) at the school, Dzongkhags and central levels.
- Start evidenced based planning at all level of education administration.
- Introduce a regular annual cycle of professional development training for all ministry officials.

2.4.2 School Efficiency

School Autonomy

With an objective to improve school efficiency, the MoE introduced the decentralization policy in early 2012. In the current scenario, however, many DEOs

and principals have expressed that their works are hindered due to lack of necessary administrative control over managerial decisions to support school affairs. Currently, the DEOs role seem to be mainly focused on Dzongkhag administrative matters, such as supervising ad-hoc programmes as directed by Dzongkhag authorities, not necessarily related to supporting schools or educational activities. The education policy also requires the principals to carry out instructional leadership responsibilities, the efforts to improve quality of education have been input-oriented primarily on infrastructure, facilities, and human resources rather than improving the system process including school governance and management.

Recommended Interventions

- The roles of the DEOs and the principals need to be clearly redefined.
- Provide autonomy to the DEOs over in-service principal and teacher training both within and outside of Bhutan.

School Management Board

Although the policy requires every school to constitute School Management Boards (SMB) to encourage participatory management and to garner support from stakeholders, many schools do not have functional

SMBs. Schools are expected to follow standard management procedure including goal setting, strategic planning, implementing plans, monitoring of plans, reviews and assessment and recording and reporting.⁴ The effectiveness of uniform governance and management structure followed by all schools are not clear (Fig. 2.23 and Fig. 2.24). There is a need to reflect on current standard governance and management system.

Recommended Interventions

- Review role of SMB.
- Develop indicators for schools to compare their overall efficiency with other schools.
- Provide school-based professional development start-up grants.

2.4.3 Education Management Information System (EMIS)

Information Management System

Robust EMIS system is the backbone of effective programme implementation and a functional EMIS should be established at all level of education-central, Dzongkhags and schools. Currently, there is no standard system maintaining the records of the students, teachers, schools and employees at the different administrative level. The field staff expressed



concern on the heavy documentation requirement for the Performance Management System (PMS). Discrepancies were reported in the records available at MoE and RCSC.

During the departmental consultations, the need for a consolidated EMI System were raised that will capture all types of information on schools, teachers, students including scholarships.

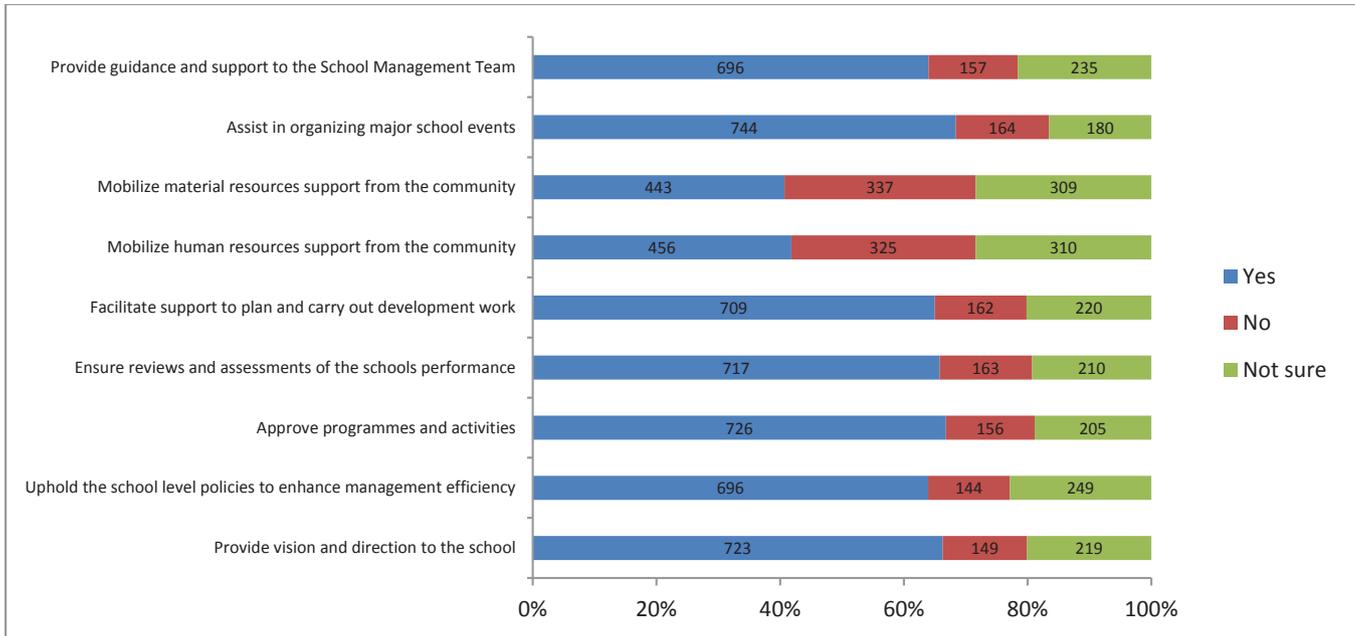


Figure 2.23 Teacher and principal perception on the functions of SMB
(Source: Education Blueprint Nationwide Consultation)

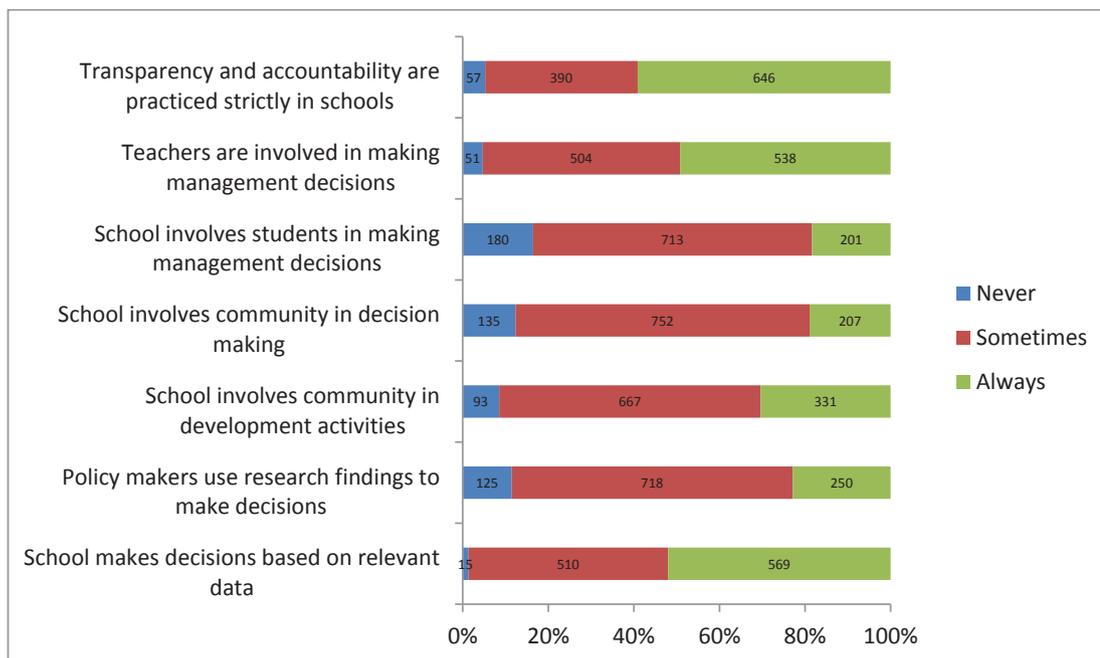


Figure 2.24 Teacher and principal perception on management of schools
(Source: Education Blueprint Nationwide Consultation)

Recommended Intervention

- Establish comprehensive functional EMIS at all level of administrative unit including schools.

The Student Achievement Tracking System (SATS)

REC initiated the Student Achievement Tracking System (SATS) in 2009. It is a computerized system which tracks student progress in both the scholastic and non-scholastic domains across years. Upon usage, and timely and accurate updating of correct data, SATS can be very useful, both at the individual students' level and at a systemic, educational planning level. However, a common code of the student will help to share the data to relevant departments.

Recommended Interventions

- Revive the system to enhance information flow at all levels.
- Student level data should be linked with current EMI System operated by PPD, MOE.

2.4.4 Legal Basis for Education

Provision for an Education Act

Article 9, Clause 15 and 16, of the Constitution of the Kingdom of Bhutan clearly mandates the State to provide free basic education from PP till the tenth standard and to provide education for the purpose of enhancing knowledge, values and skills of the entire population to develop the full human personality. For the State to fulfil its responsibility it is imperative that there is an Education Act put in place to accelerate the delivery of quality education and to provide easy and convenient access. Currently, there are many educational policies in different documents with some inconsistency which is causing a lot of confusion. There is a need to consolidate all education policy directives into one legal framework for the growth and development of education in the country.

The need for an Education Act was strongly supported by about 70 percent of the teachers and principals and the general public as indicated in Figures 2.25 and 2.26, respectively.

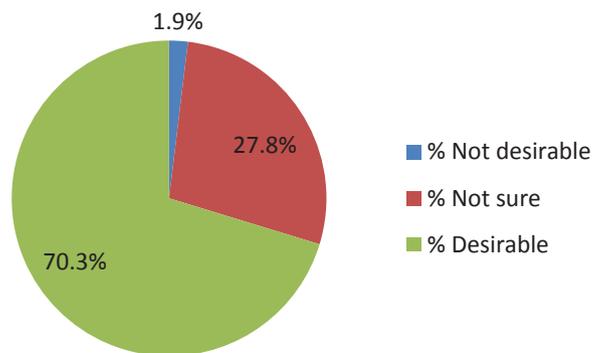


Figure 2.25 Teacher and Principal perception on the need for an Education Act

(Source: Education Blueprint Nationwide Consultation)

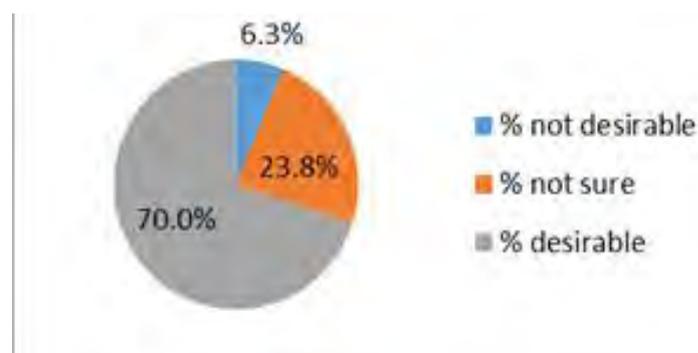


Figure 2.26: Public perception on the need for an Education Act

(Source: Education Blueprint Nationwide Consultation)

Recommended Intervention

- Frame an Education Act. Use the draft National Education Policy 2014 as a basis to develop this Act.

2.4.5 National Teacher Council

Currently, teaching is not a profession of choice; hence the Ministry is not able to attract the top performing graduates. Further, retention of qualified and experienced teachers is a big concern with teachers opting out for other attractive avenues. Teacher Quality Enhancement³³ and the Teacher

Job Satisfaction study⁵⁰ revealed lack of continuous professional development and support, poor working conditions, heavy work load, incentives not commensurate to their workload, and perceived inadequate support from the system to be the main reasons for the attrition of teachers. Consistent to the above findings, the nationwide survey findings also indicated that teacher professional development (94.7 percent), working conditions (93.3 percent), guidance and support of principals (93.1 percent), recruitment and selection process (86.8 percent), and remuneration (82.3 percent) as important factors contributing to teacher quality.

To address the aforementioned problems, the teachers and the general public was asked whether there is a need to establish a separate agency responsible for teacher registration, licencing, selection and recruitment, and welfare. 65 percent of teachers and 56.4 percent of public indicated a positive response as illustrated in the Figure 2.27. Similarly, during the FGD teachers flagged the need for a separate body to regulate the teaching profession and promote professional standards.

The proposed Education Act will incorporate the provision of Teacher Council. The status of teaching profession can be enhanced by creating an enabling organizational culture and structure which can be in the form of a Teacher Council. The Council will create structures, processes, and policies to strengthen policy development, clarify administrative rules and procedures, decentralize and simplify decision making, reduce unnecessary bureaucratic processes and introduce greater transparency and improvement in teaching profession.

Recommended Intervention

- Establish National Teacher Council in order to promote efficient delivery of teacher development, create efficient mechanism for teacher certification, recognition, licensing and registration services, welfare and redressal, etc.

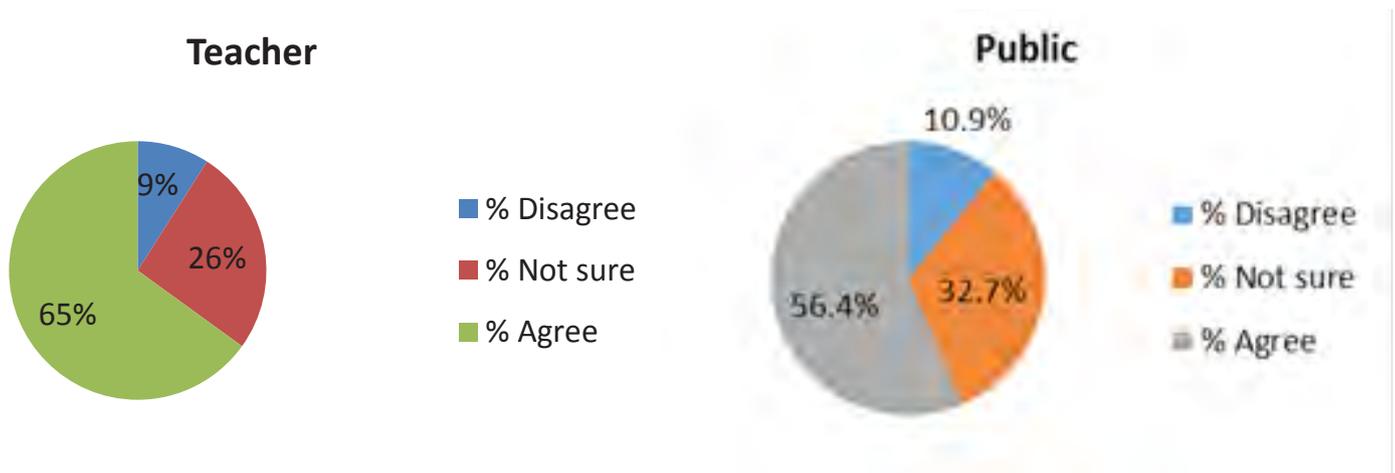


Figure 2.27 Public and teacher perception on the establishment of a Teacher Council
(Source: Education Blueprint Nationwide Consultation)

2.4.6 Agency collaboration and Institutional Linkages

The Organizational Development (OD) exercise conducted in 2014⁴⁵ revealed that there are duplication and replication of efforts within the different educational agencies (Colleges of Education under RUB, REC, BCSEA, DCRD etc.) which has resulted in the increased cost of implementing the planned activities and programmes. This has also resulted in delays and inefficient execution of educational services among relevant stakeholders. While there is a need to redefine the roles of agencies to address duplication and replication, developing a strategic partnership would also bring in system efficiency. The agency collaboration and institutional linkages both within and outside the country can strengthen educational researches, share experiences, and built on new strategies to fulfil education services in the 21st century.

Recommended Interventions

- Implement the recommendations of the OD team to streamline coordination and collaboration amongst the immediate education sector institutions to expedite service delivery.
- Develop agency collaboration and institutional linkages both with local and international partners/ organizations that will accelerate access, equity, and provision of quality education.

Since it is confirmed that the efficiency and effectiveness of the organizational functions at various operational levels are affected in the absence of proper institutional coordination and collaboration among different working units, agencies and partners, the need for strengthening linkages is found to be crucial.

There are also very few institutional linkages between agencies in the MoE and international agencies for exchange programmes.

2.4.7 Public-Private Partnership

The provision of quality education until recently has been the government's mandate. However, with the rising public expectations, increasing enrolment of students and increased demand on government resources, innovative partnerships with the private sector is crucial.

The public-private partnership in education has the opportunity to maximize access to quality education. The Ministry will advocate, collaborate and co-ordinate with the public-private sector for smooth functioning of the schools and institutes. Some of the possible areas of collaboration are education financing, innovative school practices, printing and supplies of teaching learning materials, professional development, school feeding, transport service, supplies of commodities etc.

Private School- Local

The government encourages private partnership in the establishment of schools. Many such schools have been established across the country that has contributed to providing access and an alternative option to the students. However, there are many underlying challenges.

The BCSEA findings³ on the private school management revealed the prevalence of conflict of interest and interference from the proprietor in school management procedures leading to recruitment/ selection of untrained teachers, weak coordination and monitoring mechanism, thereby affecting the professional attention given to students and their learning outcomes.

Recommended Intervention

- Facilitate and encourage establishment of more private schools around the country.

Private School: International

In line with the government's aspiration to promote Bhutan as an educational hub and to provide a wider range of options to learners, international schools with

recognized curriculum and examination system (e.g. IB, Cambridge International, etc.) will be encouraged in Bhutan.

Recommended Intervention

- Explore possibility of establishing private international schools in the country.

2.4.8 Investing in Education

As a lever to propel the country forward, education is seen as a legitimate investment in empowering its citizens and the nation’s transformation.

Internal efficiency

Key indicators for determining internal efficiency of an education system include dropout, repetition and survival/completion rates of basic education. Annual Education Statistics 2014 indicates that the repetition rates for 2014 of basic education (PP-Grade X) are 5.4 percent and 6 percent for primary school (6.9 percent Male, 5.1 percent Female). The overall dropout rate for basic education was reported at 2.4 percent. When disaggregated by grade, grades IV, VII, and IX observed the highest dropout rate of 7.6 percent, 8.8 percent, and 6.9 percent respectively. Primary school dropout rate stands at 0.8 percent (1.5 percent for Males, 0.2 percent for Females). The above revelation could be due to students not being able to cope with school transitions (eg. Grade III to IV, Grade VI to VII etc.)

The public consultation survey results indicate that family problem, high cost of education, and lack of awareness on the importance of education are the main reason for the student dropout from the school. The other reasons that attribute to dropouts include repeated failing, pregnancy, need to support family, and long distance to school. The other factors that influence student drop out are teacher incompetency and lack of teaching resources/facilities.

The Bhutan Multiple Indicator Survey findings also indicated that the student’s likelihood of reaching grade six increases with the mother’s education and household wealth, and dropout rates are higher in rural areas.³⁰

Recommended Interventions

- Expand boarding schools through the central school system.
- Improve quality of education through strengthening the number and competency of the teachers, deploying gender balanced teachers in all levels of schools, and improving the teaching learning facilities.

Financing Education

The anticipated successes of the education delivery will largely depend upon support mechanism such as strong financial and resource commitment of the government. Despite the government’s effort to strengthen the education sector, the review of the past few Five Year Plan expenditure revealed a downward trend in terms of percentage of GDP and percentage of total expenditure on education. In the last successive Five Year Plans, the proportions of the national budget amounted to 11.10 percent, 9.40 percent, 14.50 percent, 12.80 percent, 8.01 percent, indicating a significant fluctuation in available funding.⁴³

	7th Plan (1992- 1997) (outlay)	8th Plan (1997- 2002) (outlay)	9th Plan (1997- 2007) (outlay)	10 th Plan (2007- 2013) (outlay)*	11 th Plan (2013- 2018) (outlay) ²
Total Government Budget	15,590.70	34,981.70	70,000.00	73,611.76	92,000.00
Education Budget	1,738.00	3,292.70	10,209.40	9,489.10	7438.74
% of Total Budget	11.10%	9.40%	14.50%	12.80%	8.01%

Figure 2.29 Allocation of budget in education in the past five FYPs

A significant portion of the budget is spent on capital works such as constructing new physical infrastructure across the country to provide access to education. However, the nationwide consultations revealed that schools are still facing challenges in terms of inadequacy of structure and facilities including classrooms, staff rooms, information

technology, common spaces, art, and music. In some cases, libraries were noted to be under-stocked and science laboratories underutilized.⁵⁴ The maintenance and/or renovation of infrastructure appear to be rather overlooked, consequently resulting in poorly maintained infrastructure and facilities.¹⁴ Further, there are indications that urban schools enjoy better facilities compared to the rural schools.

Given the financial constraints, it is necessary to maximize efficiency to justify the investment and to achieve the overall goal of improving quality of education. Expenditure in the education sector is expected to further increase in the coming years, particularly with the increasing maintenance cost and additional investments to absorb the increasing enrolment at various levels. In addition, with the phasing out of WFP's assistance after 2018, the government will need to take over the school feeding programme. The school feeding programme has been one of the important factors contributing to the better enrolment rates (11th FYP). It is also equally important to increase non-salary recurrent cost to enhance teachers' quality.

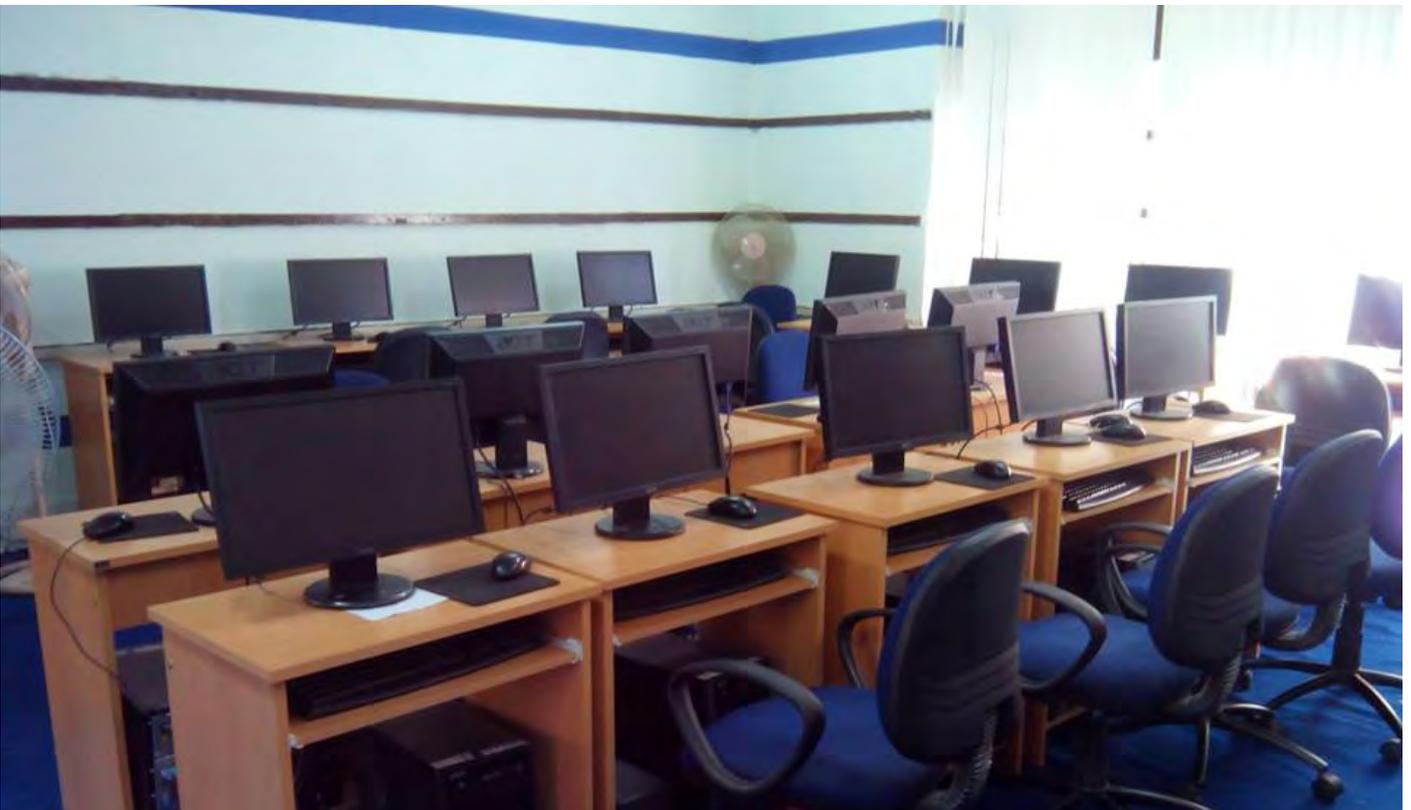
The expenditure in 10th Five Year Plan (2002-2007) showed as much as 46 percent of the education sector budget was derived from development partners.⁸ With this level of assistance, budget outlay and funding will continue to be a problem moving forward. With the reduction in public expenditure, the importance of new reforms and measures to improve and expand education, the ministry will need to develop new funding mechanisms to generate and raise money to ensure quality and efficiency of the system.

The required financial resource to implement the Blueprint effectively is presented in Chapter 5.

Recommended Interventions

- Introduce formula based funding to address the issue of equity.
- Increase the level of expenditure to meet the international set benchmark. Eg. 6 percent of GDP.
- Promoting cost sharing mechanism with the private sector.
- Improve delivery mechanism to maximize the outputs.





Chapter 3

Vision And Aspirations

Chapter 3

VISION AND ASPIRATIONS

“Our education system built and nurtured with your hard work and dedication has served us well. But we must understand that the times have changed here in Bhutan and all around us in the world. We cannot face new challenges with the same tools. The private sector is adjusting itself to new challenges and opportunities; the bureaucracy is finding its place in a new system of governance; the entire country is adapting to new roles in our young democracy. Thus, every person and institution must evolve to meet the aspirations of our people and the changing needs of our nation.”

His Majesty the King’s address at the 3rd Convocation of RUB (February 17 2009)

3.1 National Aspirations and the Role of Education

In the Royal Address to the 3rd Convocation of the Royal University of Bhutan on 17th February 2009, His Majesty the King said:

“It is not enough to provide free education – we must provide education of such quality that it will guarantee a distinguished place for our youth anywhere in the world.”

Every child in Bhutan must be given the opportunity for an education that helps them to realize their full potential and excel in life. Hence, the goal should be to raise expectations for students, for schools, and for the people generally and ensure that every student who completes formal schooling or other forms of education and training develop the right tools for success in life. Bhutan’s education system must be inspired and driven by its long-term development goal of enhancing the wellbeing and happiness of its citizens. It must be anchored to the country’s unique development aspirations underpinned by the philosophy of Gross National

Happiness promulgated by the country’s fourth King His Majesty Jigme Singye Wangchuck. At the same time, it should have the imagination, dynamism and resilience to respond intelligently to the opportunities and challenges of the 21st century. Therefore, it is imperative for Bhutan to envision an efficient, high-performing and successful education system that prepares the students, its future citizens, to thrive in a competitive and fast-homogenizing world with knowledge, intellectual competence, and character.

The extent to which Bhutan’s aspiration to become self-reliant, economically prosperous, environmentally sustainable, democratically sound, culturally vibrant, and a nation at peace with itself and with others, will depend on the knowledge, capability and character of its citizens. This requires a system of Whole Education that trains the citizens to become knowledgeable, skilled, compassionate and wise, creative and enterprising, confident, capable of responding intelligently to the challenges of daily life, and contributing to the equitable and sustainable socio-economic development and well-being of their community and the nation. The vision and mission of the country’s education system will set the stage

for undertaking the enormous task of realizing these aspirations.

Vision

An educated and enlightened society of GNH, built and sustained on the unique Bhutanese values of *tha dam-tshig ley gyu-drey*.

Mission

1. Develop sound educational policies that enable the creation of a knowledge-based GNH society.
2. Provide equitable, inclusive and quality education and lifelong learning opportunities to all children and harness their full potential to become productive citizens.
3. Equip all children with appropriate knowledge, skills and values to cope with the challenges of the 21st century.

It is intended that this vision, and these aspirations, will break the ground for transforming the Bhutanese education system. By providing the structure, support and direction to diverse learning needs, education in Bhutan will enable young people to develop the attributes elaborated below.

3.2 Aspirations for the Education System and Student Learning

Bhutan must develop an educational system that effectively addresses the needs of its children and prepares its people to perform at a level comparable to high-performing education systems internationally. Accordingly, the country must first articulate clearly its aspirations for a high-performing education system that is grounded in the wisdom of its ancient traditions as well as prepares its students to meet the challenges of a competitive and increasingly homogenized world. Based on a common desire expressed by Bhutanese people in all walks of life, as gathered from the public consultations, surveys, interviews and policy analyses carried out for developing this Blueprint, the national aspiration for education has two dimensions: The first dimension encompasses the *Aspirations for the Education*

System as a whole; the second dimension articulates the *Aspirations for Student Learning*.

3.3 Aspirations for the Education System

This Blueprint describes four transformative outcomes that the Bhutanese people aspire to see the Bhutanese education system as a whole achieve. The themed outcomes are: *Achieving Access to Education*; *Achieving Quality Education*; *Achieving Equity in Education*; and *Achieving System Efficiency*. These outcomes represent the aspirations articulated by people who participated in the consultations, the surveys and interviews and are comparable to outcomes set by other high-performing education systems. The extent to which the vision and aspirations set out in the Blueprint are realized will depend on how successfully each of the game-changing initiatives across all the four thematic areas are rolled out by the agency(ies) charged with the important task. It is important to remember that the success of each initiative across the four areas will be dependent on the success achieved in all the other initiatives. Hence, no initiative in one area should detract from or undermine progress in another. Concerted effort should be made to ensure that equal importance is given to all of the initiatives planned out in this Blueprint, which will ensure the success of the system transformation journey desired by the Bhutanese people.



3.3.1 Achieving Access to Quality Education

Every child in Bhutan deserves equal access to basic education, tertiary education, non-formal and continuing education, special education and early childhood care and development programmes that will enable the child to achieve his or her full potential. The Ministry will provide access to quality education to all Bhutanese children irrespective of socio-economic backgrounds, intellectual ability, academic performance, gender, special education needs, and geographic location, to realize their full potential.

3.3.2 Achieving Quality of Education

Every child in Bhutan will have the opportunity to achieve excellence in learning outcomes that not only reflect the wisdom of the country's dynamic culture and traditions but are also comparable to student outcomes in high-performing international education systems. The Bhutanese education system, therefore, aspires to be among high-performing education systems in terms of student performance in international assessment systems such as TIMSS and PISA within 10 years. Since TIMSS and PISA test mostly literacy, mathematics, and science, other internationally accepted assessment systems that measure other dimensions of quality relevant to Bhutanese education system will be included during the period of the transformation journey.

3.3.3 Achieving Equity in Education

Internationally, high-performing school systems provide the highest quality education for every child, regardless of socio-economic background, geography or gender. Strategic interventions will be put in place to ensure that all Bhutanese students have access to high quality education regardless of where they live, who their parents are or what school they attend. The Ministry of Education will roll out robust and time-bound initiatives that will significantly reduce the current rural-urban, socio-economic, and gender achievement gaps latest by 2024. As a result, all schools across the country will be a place where every student, irrespective of their

background or circumstances, has the opportunity to achieve their full potential.

3.3.4 Achieving System Efficiency

Bhutan has made significant achievements in all spheres of educational development since the beginning of modern secular education in the 1960s, especially in improving access through massive infrastructure development, nationalization of curricula and teacher deployment. Yet, improvements in student outcomes have not always matched the resources channeled into the system. The Ministry of Education therefore aspires to maximize student learning outcomes and raise the educational standards to international level.

3.4 Aspirations for Student Learning

Bhutan's educational system will effectively cultivate GNH principles and values, including deep knowledge and understanding, critical and creative thinking, ecological literacy, practice of the country's profound, ancient wisdom and culture, contemplative learning, a holistic understanding of the world, genuine care for nature and for others, competency to deal effectively with the modern world, and preparation for right livelihood.

Apart from the aspirations for systemic shifts and outcomes, the nationwide consultations, national education research, and policy analyses also showed a common desire to see significant quality improvements in student learning outcomes at the individual level. Members of the public, teachers, parents, educational administrators, and students were in agreement for a vision of education that



ensured that every student in every school in every part of the country achieves their full potential; that everybody who has a stake in the health of the country's education system - school leaders, teachers, administrators, policy makers, parents, and the community - must be committed to ensuring that the students in their charge are sufficiently enabled to realize these aspirations. Based on these aspirations as well as experiences and insights from high-performing systems, the articulation of students' knowledge, competencies, and values have been re-examined and refined. It is imperative for Bhutan's education system to ensure that every student in every school develops the attributes (outcomes) in this Blueprint so that they are sufficiently prepared to thrive in a competitive economy and homogenized world.

The vision and aspirations for student outcomes presented in this Blueprint as "Student Attributes" will continue to draw its life and inspiration from Bhutan's national development goals, the

development vision of Gross National Happiness, the Constitutional mandate for education, and His Majesty the King's vision for the youth of Bhutan. The aspirations will also draw on learnings from high-performing but relevant systems around the world. Accordingly, student aspirations are anchored to four imperatives of learning and achievement - Knowledge, Competencies (skills), Values, and Attitudes. The Blueprint articulates nine student attributes that indicate the quality of learning, individually or collectively, in one or more of the imperatives. The Blueprint emphasizes not just knowledge and competencies but also the importance of character building, learning habits, family, community, and national values, physical and psychological wellbeing, and sense of identity.

3.4.1 The Nine Attributes

i. Knowledge and understanding

Every student must get the opportunity to realize



Figure 3.1 Nine Student Attributes

their innate potential to become fully literate and numerate. With these basic skills, they can not only adapt intelligently to the challenges of life but are also capable of contributing to the wellbeing and happiness of their community and the nation. Students will acquire deep knowledge and understanding of Science, Technology (including ICT competence), Engineering, and Mathematics (STEM), the vital tools they need to succeed in higher education or function effectively in a competitive economy. In addition, students must develop mastery over the languages, especially Dzongkha (the national language) and English (the language of education, opportunity and mobility). In addition to literacy and numeracy, they are knowledgeable and productive users of technology, especially ICT, as an indispensable tool for success in all areas of learning. Being in a multilingual society, students will also be encouraged to develop knowledge of the dialects. They will acquire sound knowledge and understanding of human history, society, culture, ecological sustainability, and heritage. For holistic development, every student will get the opportunity to develop practical knowledge and experience of Bhutanese culture, art, architecture, music, sport, media, and spiritual practice.

ii. Intellectual competence

Every student needs to possess a spirit of inquiry and learn how to continue acquiring knowledge throughout their lives, to be able to connect different pieces of knowledge. Immersed in a dynamic culture of learning characterized by innovative curricula, creative pedagogies and authentic assessment of learning, students will develop higher-order thinking skills such as the ability to analyze, synthesize or evaluate information, judge complex situations through critical reasoning, anticipate and seek creative solutions to problems. They will master a range of cognitive skills that include the ability to innovate, to generate new possibilities, and to create new ideas or knowledge.

iii. Communicative competence

The ability to communicate effectively with others

is an important determinant of effective functioning in different situations of life. Every student must be given the opportunity to attain the highest level of competency in Dzongkha, the national language, and English, the international language of communication. This will enable the students to collaborate and communicate effectively with fellow Bhutanese, to build relationships beyond the community, to be globally aware, and to communicate effectively across cultures. Students are able to clearly express opinions and intentions in oral and written form. As a result of quality education in the languages, they are able to engage in effective listening, understanding, and conversation in personal and public situations. They use the conventions of speech that show respect and sensitivity to others. They are able to explain their positions on, and understanding of, complex issues.

iv. Enduring habits of life-long learning

Students are able to understand the value of hard work and apply the concepts of academic disciplines in the real world, including work demands and social and cultural situations. Hence, every student must receive the opportunity to cultivate sustained learning habits and educational efforts should inculcate in our children a personal commitment to enduring habits of life-long learning, and pride in the achievement of excellence. The ability to independently drive one's own learning, coupled with the appreciation of the value of lifelong learning. With the abilities developed, students should be able to apply knowledge and critical thinking outside of familiar academic contexts. Developing the capacity to learn





and realise one's full potential as an individual; playing an active role in own learning; being able to plan activities independently, collaborate, work in teams and communicate ideas; making sense of the world and thinking about how things have become the way they are; being on the path to continued success in further education, training or employment; acquiring the skills to make informed learning and employment decisions throughout life and being motivated to reach full potential.

v. Family, community and national values

Students are able to recognize and appreciate that the family is the foundation of social health and harmony. It is the most fundamental school where the values of care, kindness, compassion, love, gratitude and respect are learnt and internalized. They have a high sense of gratitude and are able to reciprocate what the family has given them with profound gratitude. They show deep capacity to influence the wellbeing and happiness of others through these values. In a positive learning environment, students learn to show mutual respect for each other and take care of each other. These values are then passed on to the community. Students show respect and appreciation for the values of the community. They will participate in community activities, cultural events and services

willingly and are committed to vitalize local culture and local wisdom. They are able to understand self in relation to the people around them, care for others, and contribute to social wellbeing and harmony. They are able to stay involved in the community, take care of community property and its environment, and uphold the values of equality and justice in the community. Students show a deep understanding of Bhutan's past and present and understand the country's social, economic, cultural, political, environmental, and spiritual values that make it and its people unique. With the knowledge and conviction they possess about the country, students develop an unshakeable sense of national identity and how it is imperative for Bhutan's sovereignty and independence. With this sense of belonging, every student will identify themselves proudly as Bhutanese regardless of their socio-economic status, geographical location, linguistic difference, or religious affiliation. This sense of patriotism will be nurtured through understanding the values of inclusiveness, tolerance, acceptance, and respect for diversity. With deep knowledge and understanding, students see themselves as not only citizens of Bhutan but also citizens of the Earth. They understand that the values of GNH go beyond the borders of Bhutan.

vi. Spirituality and Character

“If you place all your hopes for your future in the education you have, it is not enough. You must also know the difference between good and evil, between right and wrong, between compassion and self-interest.”

His Majesty the King’s address at the graduate orientation programme 23 August, 2011

The principles and values of Gross National Happiness are deeply embedded in the consciousness of Bhutanese students. Students will see reality clearly, will not be trapped by the lure of materialism, and will care deeply for others and for the sustainability of natural world. They develop personal values and attributes such as compassion, honesty, resilience, empathy and respect for others. Spiritually strong, they possess self-awareness, personal identity, and self-worth which enhance their emotional wellbeing. Hence, students are able to comprehend, identify, use and manage emotions in self and others. The education system will provide opportunities to develop character through the formal curricula, educating for GNH programs, classroom learning,



Figure 3.2 GNH Mandala

projects, social interactions, and the informal curricula such as sports, the arts, and co-curricular activities. Ethically, students are able to understand moral and ethical values and act in accordance with these principles in their own lives and uphold them in their communities. They are honest and resistant to corruption with a strong sense of justice. Students will practice right livelihood based on ecological consciousness and with a strong sense of the dignity of labour. Students will learn the values of integrity – to possess the courage, the discipline, and the will to do the right thing. Conscious of the interdependent nature of self and others, culturally aware, tolerant of other cultures, and respectful of diversity, students are ready to take on the role of a global citizen.

vii. Physical wellbeing

School education must provide every student the opportunity to access quality physical education to develop physical competence, fitness, self-esteem and self-responsibility. Students take their physical education seriously and pursue an active and healthy lifestyle through regular exercise, and healthy eating and nurturing positive attitudes. Physical education in school should serve as a lab for application of students’ knowledge of health and social studies that they acquire through the curricula. Students understand and appreciate the value of regular, healthful physical activity while in school and later in adult life. Through training in self-discipline in remaining physically fit, students accept responsibility for their own health and fitness. Physically fit, students are intellectually, socially and morally strong and show emotional stability and resilience. With improved self-confidence and self-esteem and positive people skills, they are able to avail opportunities to assume leadership or cooperate with others.

viii. Leadership competence

Bhutan believes that the quality of education children receive today will determine the character and conviction of its future citizens and leaders. Every student must get the opportunity to develop their innate potential for leadership in the areas where they



excel. Being able to work effectively with and lead others is critical, especially in democratic Bhutan and in an increasingly inter-connected and globalized world. Hence, learning experiences in school must be designed in such a way that the students are able to take on leadership roles, to learn leadership values and skills, and to work effectively in teams. Students will especially develop leadership attributes such as Knowledge (understanding of the discipline and of the world), Enterprise (ability to generate creative solutions, ability to take risk and the drive to see these through to their realization), Resilience (ability to develop a mindset that is positive and constructive as well as willing to withstand setbacks), Empathy (ability to understand the other person's thoughts and feelings and willingness to care for or help them, hence ability to understand and work effectively with others and to influence them positively), and Communication (ability to listen effectively to others, to ask effective questions, engage in effective high impact conversations, build trust, to set directions to meet goals, and to mentor others).

ix. World-readiness

Every student who completes school has the knowledge, skill and attitudinal readiness to face the challenges of the real world. Students are able to understand the value of hard work and apply the concepts of academic disciplines in the real world, including work demands and social and cultural situations. They are able to show analytical reasoning, critical thinking, and creative problem-solving skills. In addition to literacy and numeracy, they are productive users of technology, especially ICT, as an indispensable tool for success in all areas of learning. With effective leadership skills, students are able to make decisions that are considerate of others. They are culturally sensitive and committed to the Bhutanese values of sustainability and the preservation of the environment. Able to connect knowledge from all curricular areas to enhance understanding of the world, they are willing to work towards solving the issues that confront Bhutan. Caring and compassionate, knowledgeable and emotionally sound, students are able to contribute to national development.

3.5 Eight Shifts to Transform the System

The Bhutan Education Blueprint 2014-2024 is a roadmap to excellence and innovation that will significantly raise the standard of learning in our schools. In the past one year the Ministry has consulted Bhutanese people across a wide range of sectors – teachers, students, parents, farmers, policy makers, educational administrators, educationists, academics, former education leaders, lawmakers, senior citizens, members of the civil society, and many others - to find out what their dreams and aspirations about Bhutan’s education system were and what the Ministry of Education should do to deliver on those aspirations. The inputs were gathered through a number of research techniques including surveys, focus group interviews, one-one-interviews, and policy analyses. The analysis of the inputs showed a high degree of consensus among the Bhutanese public that transformative shifts were necessary at the systematic level and at the level of student learning. Aspirations were expressed for system improvement and student outcomes discussed in Chapter 2.

The Ministry of Education has identified eight shifts that will need to occur to deliver the aspirations via a number of carefully designed game-changing initiatives. Each shift will address at least one of the four system outcomes of Achieving access in education, Achieving quality in education, Achieving equity in education, and Achieving system efficiency. The Blueprint considers quality the common underlying focus across all the shifts as this is the educational dimension that deserves the most immediate and urgent attention. While some of these shifts represent a change in strategy and direction, others represent operational changes in the way the Ministry and schools operate. Regardless of whether it is a strategic or operational shift, they all represent a move away from current practices. It is envisaged that the four Aspirations for the Education System and the nine Aspirations for Student Learning will be achieved through eight transformative ‘Shifts’ (discussed in Chapter 4) that the educational system will make between 2014 and 2024.

A number of factors must be considered before launching the initiatives. First, it is important to ensure that any initiative rolled out to make the shifts must contribute to the system and student aspirations described above. This implies that any initiative that delivers one outcome at the expense of another, or would potentially address a different aspiration must be deprioritised. Second, the Ministry must draw on learnings from international best practice that would help to reflect critically on the initiatives before they are launched. Third, the initiatives should be relevant to the system’s starting point and be within the Ministry of Education’s ability to deliver them. This means that the initiatives should be sequenced to evolve in complexity as the capabilities and capacity of school leaders, teachers, educational administrators, Ministry officials, develop. Finally, in order that the system works towards meeting the people’s aspirations, it is important that the initiatives take precedence over temporary financial or operational impediments.

Collectively, the game-changing initiatives in each shift will address the Bhutanese people’s educational concerns and their dreams for the future. The Bhutan Education Blueprint is presented with the sole intent that it will provide the basis for a collective endeavour by the people to work towards transforming the quality of education that the children receive. The next Chapter describes each of these shifts and the initiatives that will be launched.



Chapter 4

RECOMMENDED EDUCATION SHIFTS

Chapter 4

RECOMMENDED EDUCATION SHIFTS

This chapter outlines the recommended shifts in response to the emerging challenges and to realize the visions and aspirations discussed in Chapter 2 and 3 respectively. The Blueprint identified eight shifts and forty game changing initiatives to be rolled out from 2014 to 2024, with the ultimate objective of improving student learning outcomes and their overall development. The game changing initiatives are sequenced according to the priority against each shift to address the Bhutanese people's educational concerns and their aspirations.

4.1 Shift One: Ensure access and equity to education

Why is it needed?

Access to quality education is a prerequisite to achieve Bhutan's aim to be a knowledge-based society. Research shows that while access is growing globally, quality lags behind. Out of 650 million children of primary-school age in developing countries, 250 million are not achieving minimum benchmarks for learning.⁶⁵ Similarly, while Bhutan has excelled in accelerating the NER in the primary to 95 percent and in the secondary to 85 percent as of 2014, students are not attaining the desired state of learning standards as they go through respective grades.¹⁴ The focus now must shift to providing quality education, through rigorous and sustained interventions.

ECCD programme is crucial in laying foundation of human development and lifelong learning, particularly children from lower socio-economic

background. However, access to ECCD programme is limited to 9 percent of children aged 3-5 years and are generally availed by well to do parents and urban communities. This creates disparities in intellectual, emotional and physical development among children. During the consultation, public strongly expressed the need to expand access to quality ECCD programmes, especially in the rural areas to provide equal opportunity for all children.

Technical/vocational education is typically viewed as 'second-class education' and therefore fails to attract students to take up technical courses. Further, access to such programmes is also limited despite the growing demand for technical skill given the development pace of the country.

Tertiary education is essential for development of human capital and knowledge required for sustainable economic development of the country. However, with the rising number of grade XII graduates, access to tertiary education is still a challenge given the limited intake capacities in the existing tertiary institution and private sector participation.

SEN programme coverage is currently limited, and is availed by only 366 children as of 2014. The number of students availing the programme is negligible compared to the population with disabilities and there is a need to expand and sustain the coverage of the programme.

Despite initiating *NFE programme* since 1992, the target of achieving 70 percent adult literacy by the end of 11th FYP remains a big challenge with the literacy rate standing at 55 percent in 2014. This calls

for the need to strengthen the programme to achieve adult literacy rate to at least 80 percent by 2024.

Studies conducted in Bhutan have highlighted the presence of disparity in the school facilities and the student learning outcome. Despite the various interventions from the Ministry, the equity gap continues to exist at all levels in our education system, from early years till the completion of college. In addition, gender represents an equity dimension that is significant in education. It is imperative that strategic interventions be put in place to ensure that all Bhutanese students have access to high quality education regardless of where they live, who their parents are or what school they attend.

What will success look like?

Bhutan achieves near universal enrolment rate by 2024. All students completing basic education take up either academic, or vocational/technical courses based on their aptitude and interest. The system produces academic and technical graduates who are intellectually, emotionally and morally sound and productive citizens. The country achieves at least 80 percent adult literacy by 2024 and all citizens are life-long learners. At least 50 percent of the 3-5 years old children get equal opportunity to avail quality ECCD programme to develop their full potential. At least 50 percent of the 3-5 years children with special needs and different backgrounds experience conducive and supportive learning environment while availing educational opportunities. All staff and students value diversity and demonstrate respect and commitment to establish a just and caring learning environment. All students in Bhutanese schools have equal opportunities to achieve their full potential.

Game changing initiatives

i. Enhance access to ECCD programmes

- Advocate the role of ECCD programmes in preparing children for formal school to parents and relevant stake holders through awareness programmes.
- Facilitate establishment of ECCD centres

by private, corporate, NGOs/foundations, development partners, communities, etc.

- Increase the number of community ECCD centres in the rural communities.
- Ensure that ECCD centres meet the Early Learning Development Standards (ELDS) by providing support through periodic monitoring
- Institute national quality standards for ECCD centres, including a provision that every ECCD facilitator have a minimum qualification of diploma in early childhood care.
- Streamline the services of the ECCD facilitators in recognition of the ECCD programme.
- Build the capacity of all the teachers teaching grades PP-II to cater to the ECCD need of children aged 6-8 years.

ii. Enhance access to basic, higher secondary and technical/vocational education

- Work towards universal enrolment for school going age children to complete basic education.
- Provide adequate resources in schools including, empowered school leaders, competent teachers, trained counsellors and care givers to provide conducive and inspiring learning environment.
- Provide nutritional meals to students for their physical and mental development and have richer school experience, both academic and non-academic and strong moral values to excel in their life.
- Introduce pre-vocational orientation to grade VII and VIII students and technical/vocational courses as elective subjects to grade IX to XII students to equip them with technical/vocational skills, entrepreneurial skills and promote dignity of labour.
- Revamp the quality of existing technical/vocational institutes including the programmes and competence of the instructors.
- Increase the number of technical/vocational institutes and facilitate multi-sectoral government and industry cooperation in technical/vocational education.

- Strengthen academic and career counselling services in schools to help students make informed choices about different education path ways.
- Work towards 20+ percent enrolment in technical/ vocational education by 2024 at higher secondary level and gradually enhance the enrolment to 40 percent within 2034.

iii. Enhance access to tertiary education

- Enhance intake capacity in the public tertiary education institutions through programme diversification, expansion of existing institutions, and/or establishment of new institutions.
- Promote private sector participation in diverse fields at the tertiary level.
- Establish Bhutan Qualification Authority to ensure quality assurance and accreditation of institutions and programmes and student mobility through implementation of the Bhutan Qualifications Framework.
- Provide financial support to students from economically disadvantaged family to pursue tertiary education at different levels.
- Strengthen institutional linkages to increase opportunity for national students to pursue tertiary education outside Bhutan as well as to promote student exchange.

iv. Enhance access to special education programme

- Increase in investment in Special Education Needs (SEN) programme to provide equal opportunity for SEN children.
- Identify and integrate students with mild to moderate disabilities into mainstream schools.
- Increase the number of SEN schools to enhance enrolment of children with special needs.
- Equip SEN schools with facilities and equipment to ensure supportive and conducive teaching learning environment.
- Provide education and training to teachers of the SEN schools.

- Provide appropriate programmes and support services to cater to the needs of gifted students.
- Facilitate private and tertiary institutions to support SEN students.

v. Enhance access to NFE and CE programmes

- Work towards 80 percent adult literacy by 2024.
- Deploy qualified instructors in NFE centres based on a dynamic curriculum to make learners more skilful, aware and knowledgeable leading to more economic enhancement and fulfilling lives.
- Strengthen the monitoring system to assess learners' performance, course completion time and completion rate for fast tracking adult literacy rate
- Expand continuing education programme to tertiary level.
- Diversify CE programmes to include technical/ vocational fields.

vi. Bridge the learning gap

- Provide equal opportunity and access to all students regardless of their background and situation so that the learning outcome differences are not a result of inequity.
- Ensure equitable distribution of competent teachers and principals across the country to create an enabling environment and fair opportunity to all students to achieve the full potential.
- Provide additional support to low performing students.
- Initiate student exchange programmes to enrich their learning experiences.

vii. Minimize the rural-urban differences

- Ensure that the school funding formula is responsive to the student and school needs especially for rural and remote schools.
- Establish central schools.

viii. Improve gender equity

- Develop a strategic policy to enhance quality

learning outcomes in girls, especially in the higher secondary and tertiary levels.

- Provide girl-friendly boarding schools with gender sensitive policies and facilities.

4.2 Shift Two: Revamp curriculum and assessment to enhance student learning

Why is it needed?

The future success of the Bhutanese will lie in the inspiration, integrity and vision of the school curriculum. The curriculum should show the path for the future and specify what students should know, understand, and be able to do. The growing Bhutanese economy and the expanding world economy demand for knowledge, skills and values to be not just the best in Bhutan but also in the world. It should also embrace emerging learning areas. While the reformed languages and STEM curriculum, which incorporate the Bhutanese values of GNH and are benchmarked with widely accepted international standards, have incorporated these elements, there are a few curricular areas to be reviewed and reformed. The national consultations revealed the need to revise the social sciences curriculum and textbooks and also to integrate GNH values and principles, and 21st century skills.

The assessment system has only enabled Bhutanese students to reproduce content knowledge. It has not helped to attain the desired competencies at various levels, hence, the whole assessment system needs to be revamped to ensure comprehensive assessment of the students.

What success will look like?

The learning standards for student outcomes at the end of each key stage are clearly defined and benchmarked to international level for all disciplines including technical and vocational subjects. Elements of Educating for GNH and 21st century skills are completely integrated into the curriculum. Contemporary teaching learning pedagogies are practiced. Students are innovative, creative and

enterprising, imbued with values and are locally and globally productive.

School based assessments are comprehensive and assessment system is competency based that tests higher order thinking skills. Different assessment strategies are adopted to assess socio-emotional and psycho-social domains in addition to cognitive domain for holistic assessment of every child. National education standards are set to enable Bhutanese students to participate in international level competency tests such as TIMSS, PISA and PIRLS.

Game changing initiatives

i. Restructure education pathway

- Offer a variety of elective subjects besides the core subjects for students to choose from including technical/vocational subjects, especially from the secondary classes onwards.
- Facilitate lateral transition to provide flexibility to the students to pursue different pathways (Figure 2.5 in Chapter 2).

ii. Complete benchmarking of school curriculum to international standards

- Establish periodic curriculum review cycle to ensure that the curriculum and assessment is evaluated and improved to make it relevant.
- Review and revise PP-XII school curriculum (all subjects).
- Develop a standard framework for curriculum materials to ensure high quality teaching learning materials in terms of content, size, paper, colour, etc.
- Validate school curriculum by international validation institutions for benchmarking and recognition.
- Introduce international testing system (Eg. PISA and TIMSS) to measure student learning compared to international standards.

iii. Revamp assessment system

- Strengthen the assessment system to enable strong school based assessment.
- Train teachers to accomplish comprehensive assessment at all levels.
- Restructure the current preparation, conduct and evaluation process of high stake examination from testing lower order cognitive skills to higher order thinking skills.
- Review the current trial examinations system for grades X and XII for its need and/or efficacy.

4.3 Shift Three: Raise learning outcomes of students comparable to leading international standards

Why is it needed?

The principal goal of school education is to ensure excellence through “high student learning and achievement for all” by improving the overall effectiveness of learning and raising academic standards. The aim is to ensure that all students graduating from the school system have the level of knowledge, skills, and values comparable to those students graduating from the leading systems in the world. Overall, the education should strive not only for excellence in academic standards but also uphold universal values as well as values consistent with the Bhutanese culture and tradition. The school curriculum, school leaders, teachers and the whole education fabric should collectively create an ambiance to improve student learning and must also cater to the diverse needs and interests of the students and the nation.

Research conducted by REC on student learning (ASSL)⁵³ and teacher’s needs (TNA)⁴⁷ pointed out that students were unable to understand core concepts and apply knowledge to real life situations. Consequently, their learning outcomes are below the minimum expectations of their grade levels. This calls for improving the methods of instructions to

enable effective student engagement in their own learning.

What will success look like?

All students achieve high standards in learning. They exhibit 21st century skills and apply the knowledge, skills, and values in their daily lives. Students’ performances are comparable to the leading international standards. Co-curricular and extra-curricular activities enable students to develop competency in communication and social skills and development of character. They are also able to understand complex ideas, think on their own, communicate and collaborate, and are world-ready.

School culture ensures healthy and caring environment to prepare study-ready students. Teachers and principals continually research on advancing engaging pedagogies to promote experiential learning environment. Assessment practices are based on discovering the talents and potentials of each child and facilitate effective feedback to promote learning. All students are highly motivated to learn.

Game changing initiatives

i. Transform teaching learning practices

- Transform teaching learning practices from culture of fear to culture of engagement.
- Enhance teaching learning practices through various pedagogies that enable learners to construct knowledge through their own experiences.
- Provide focused CPD programmes to principals and teachers focusing on 21st century teaching skills.
- Review and strengthen formative assessment practices.

ii. Facilitate students to be independent learners

- Enhance efficient and effective study habits through self-management, time management, stress management, and learning to learn.
- Improve reading and writing skills.
- Establish proper student support services in schools to improve student learning.

iii. Ensure physical and psychosocial ambiance

- Strive to up scale the school ambiance to enable students to be study-ready.
- Enhance student support programme such as counselling services, life skill education, scouting, etc.
- Provide healthy and nutritious diet to the boarding schools and schools that are entitled for day meal.
- Ensure safe and secure learning environment.

iv. Recognize and reward high performers

- Initiate and sustain award system at different grade levels to enhance students' academic learning outcome, encourage creativity and innovation, and strengthen the co-curricular and extra-curricular activities.

4.4 Shift Four: Transform teaching into a profession of choice

Why is it needed?

The quality of a school system cannot exceed the quality of its teachers and, therefore, quality candidates must be recruited into teaching profession and develop them to enhance students' learning outcomes. At present, teaching is not always a profession of choice. Teachers are generally burdened with heavy teaching load and additional co-curricular responsibilities. However, their working and living conditions, and remuneration are not always commensurate to their work load. During the public consultations, teachers have expressed their dissatisfaction on the current working conditions in

schools, and lack of proper accommodation facilities in remote schools. Studies done by REC on teacher quality reported on the poor standard of teachers with regard to content knowledge and pedagogical skills. This is further confirmed by the public consultations and therefore, teacher competency is a concern today and it needs immediate attention. All these initiatives motivate teachers to perform well which in turn help to advance student learning.

What success will look like?

Teaching is an esteemed, elite profession that only recruits candidates with the attributes of teachers, selected from amongst top 30 percent graduates in the country. Teacher candidates undergo rigorous teacher preparation at teacher education colleges, which is supported by continuous professional development programmes once they enter into the teaching fraternity. They have access to exciting career development opportunities as outlined in THRP 2014. Teachers have three distinct career tracks: teaching, administration, and specialist and can attain the highest position level equivalent to government secretary or university professor, based on their performance. Professional learning community is built in schools to enhance their academic and pedagogical competencies and to facilitate engaged, effective and active learning. Mentoring and coaching is further enhanced and supported by Master Lead Teachers (MLT), Cluster Lead Teachers (CLT) and School Lead Teachers (SLT) in every Dzongkhag.

Game changing initiatives

i. Raise teacher morale and motivation

- Enhance the image of teaching profession through establishment of an autonomous body (such as National Teacher Council) that will address the professional needs of the teachers including their welfare and redressal.
- Improve working conditions in the schools including proper accommodation for teachers in remote schools, access to all the facilities needed to enhance teaching and learning including easy

access to internet facilities, computer, etc.

- Provide attractive remuneration to all teachers and additional incentives to teachers in remote schools.
- Nurture a positive school culture wherein teachers' participate actively in decision making.
- Reduce work load to focus their time to enrich teaching and learning.
- Ensure stringent implementation of THRP 2014.

ii. Enhance the quality of professional development (PD) programmes

- Create forum for sharing of best practices including research works.
- Ensure teachers and the supervisors (MLT/CLT/SLT) collaboratively develop an individualized Continuous PD programme
- Strengthen SBIPs.
- Strengthen Centenary Institute of Education
- Incorporate use of ICT in teaching-learning process as one core area of professional development programme
- Allocate regular funds for conduct of professional development programmes at cluster and school level.

iii. Implement competency and performance-based career progression

- Encourage schools to effectively administer the standard Performance Appraisal System (PAS) focusing on teacher's ability to deliver effective instruction
- Reward high performing teachers in the form of out-of-turn promotion, national and regional awards and consideration for fellowships/scholarships
- Ensure every teacher produces at least one Action Research in a year related to teaching and learning.

iv. Raise the entry bar for teachers

- Establish stringent teacher recruitment system from among top 30 percent of grade XII graduates and gradually advance towards recruiting from among top 30 percent of university graduates.
- Conduct rigorous face to face interview to test teacher attributes such as love for children, strong interpersonal and communication skills, a willingness to learn and the motivation to teach through use of standard instruments.
- Institute stringent recruitment of teacher graduates from the Colleges of Education through competency test in English (equivalent to IELTS) and elective subjects.

v. Revamp teacher preparation programmes in the Colleges of Education

- Ensure trainee teachers are excellently prepared in the colleges wherein they receive opportunities for personal development such as oral communication and social development skills through inter-college discussions, debates and seminars, etc.
- Provide excellent content knowledge in elective subjects along with opportunities to demonstrate and practice 21st century skills and strategies
- Ensure rigorous and effective teaching practicum through close mentoring and supervision by the respective subject heads, MLT, CLT and SLT
- Enhance selection criteria of the new lecturers and up skill the existing lecturers in the Colleges of Education
- Review the duration and programme for Post Graduate Diploma in Education (PGDE) course.

4.5 SHIFT Five: Ensuring high-performing schools and school leaders

Why is it needed?

A fundamental responsibility of a school is to ensure that every child is equipped with the knowledge, information, skills, and values required for success in life. High performing schools will help every student reach his or her full potential by facilitating effective teaching learning programmes, creating formal and informal opportunities for students to work in teams, and to take on leadership roles. Therefore, it is paramount that schools become high performing schools with autonomy over school management including financial, human resource, and administrative powers.

The national consultation findings confirmed that school leadership is one of the most important areas that require urgent attention. The studies show that the current practice of school principal selection is primarily tenure driven rather than on leadership competencies. It also indicated that 42 percent of the principals have not received induction prior to their appointment and 27 percent of the principals have not received any continuous and structured professional development in the last three years. This implies that principals are not well prepared to take up the new administration, managerial and instructional leadership roles. Therefore, developing a pool of high performing principals is crucial to ensure high performing schools.

What success will look like?

High performing schools have autonomy over school management enabling teachers and principals to focus on their core task of facilitating effective teaching and learning programmes. Schools are authorized with financial, human resource and administrative powers and are made responsible for operational decision making in terms of budget allocation and curriculum implementation. Schools have functional school governance structure whose members' roles and functions are clearly defined. They have effective

School Management Board (SMB) and instituted mechanism to ensure involvement of parents and other communities in governing and providing inputs in the operations of schools.

Classrooms reflect the student centric teaching methodologies of the school. The design, furniture set up, and classroom size are suitable allowing flexibility in conducting teaching-learning processes in a dynamic environment. The classrooms are equipped with adequate furniture, book shelves, manipulative, and all teaching learning materials that are required to allow differentiated teaching and learning and enrich student's learning experiences.

Schools are led by effective principals, who are empowered with authority and who shoulder responsibilities with high sense of accountability. Schools have high-performing principals who are relentless in focusing on improving student learning outcomes, academic and non-academic. Each principal/teacher has a share of some regular PD funds to develop his/her professional knowledge, skills, and values as per the 80 hours of PD policy.

Game changing initiatives

i. Empower schools to promote good governance

- Strengthen the SMB to assist efficient governance of schools, including development and endorsement of the schools' strategic plan, planning, monitoring and reviewing school performance. They also play a role in approving the school's budget and ensuring in the smooth functioning of School Management Committees.
- Provide training to SMB members, school committee chairpersons and school principals to build knowledge, understanding and skills in school management.
- Support schools with resources and processes to engage and develop partnerships with parents, care givers and communities.
- Create a dedicated annual budget for all the schools, calculated per teacher/principal, meant for professional development.

- Institutionalize induction and CPD Programmes and institute Professional Learning Community (PLC) in all schools to enhance learning and ensure continuous professional development of the principals, teachers and staffs.
- Develop a complete school management process manual and provide training on its use.
- Decentralize the operations of schools where possible to communities and major stakeholders wherein the Ministry continues to support these schools with principals and teachers, including teaching-learning materials.
- Review and strengthen the Performance Management System (PMS) to carry out holistic assessment of schools for further improvement.

ii. Ensure high performing school leaders

- Empower principals by giving them more autonomy with accountability for their decisions and actions to practice decentralized management system, including finance, human resource, curricular and administrative matters consistent with School Autonomy Guidelines.
- Enhance implementation of THRP 2014 viz-a-viz principals' career progression to develop a pool of committed and high-performing principals imbued with high professional standards.
- Institutionalize intensive induction programme for newly recruited school principals to assist them taking up their new role.
- Provide continuous and sustained PD programmes in a progressive manner to principals to ensure professional standards of dynamism, calculated risk taking, strategic planning, content knowledge on curriculum and instructional leadership skills.
- Institute mechanism to recognize high performing principals through fast tracked career progression opportunities and professional up-gradation to study overseas as outlined in THRP. Put in place mechanisms to attract high performing principals in remote schools.
- Ensure a system of succession planning mechanism that identifies and grooms high-

potential individuals to ensure a pool of potential leaders.

- Enhance selection criteria for principals from tenure-based selection criteria to one that is focused on both experience and the demonstration of leadership competencies.

iii. Empower teachers to enhance student learning

- Create an intensive preparatory programme for teachers to prepare them to take up their new role as teachers. Design and develop a school-level performance benchmarking system to improve teacher efficiency by creating measuring indicators.
- Provide continuous and sustained CPD programmes to teachers to enhance their knowledge, wisdom, 21st century teaching skills, tools and the capacity to facilitate student learning effectively.
- Engage teachers as full partners in creating high-performing schools. Make teachers a part of the decision making process, collaborative planning, and delegate responsibilities as ways to recognize capable people in the school.
- Improve the working conditions and address the teacher workload issues.
- Create a peer-led culture of professional excellence wherein school leaders mentor one another, develop and disseminate best practices and hold their peers accountable for meeting professional standards.
- Create opportunities for professional growth of teachers with clear career progression based on a fair, transparent, and participative appraisal system to provide incentives for the high performers in line with THRP.

iv. Strengthen involvement of parents and communities

- Ensure involvement of parents and communities in governing and providing inputs into the operations of schools. Schools consider parents as

“clients” that have stake in overall performance and conduct parent satisfaction surveys and use the results to make improvement

- Create a network of community with business sectors and other stakeholder (Eg. RNR staff) to mobilise their support for school’s development. The involvement of all these stakeholders will create a learning ecosystem that reinforces the knowledge, skills, and values taught to students in schools
- Equip every parent with necessary knowledge and skills to support their child’s learning through a parent engagement strategy and online access to their child’s in-school progress.

v. Ensure classroom and school infrastructure meet the minimum standards

- Provide every school with minimum infrastructure requirements to create a safe and secure, hygienic, and conducive environment for learning regardless of its location, size, or type. Infrastructures include access to clean drinking water, sufficient toilets, classrooms, tables, chairs, etc.
- Equip classrooms suitably to ensure dynamic and differentiated teaching learning environment, with an ideal recommended class size of 24 for primary and 30 for secondary.
- Explore cost effective and durable designs for school buildings that are safe and secure, eco-friendly, energy efficient and easy to maintain.
- Develop monitoring guidelines and evaluation system to fix accountability and ensure proper maintenance of the infrastructure.

vi. Anchor the system to common goals

- Anchor the school system on a shared common goals and targets. For example, the 11th FYP has a set of Key Performance Indicators (KPIs) anchored on the system goals of access, quality, equity, and efficiency. Performance of the Dzongkhag/school is tracked against these KPIs on a yearly basis and the ones that achieve the target are recognised for their efforts.

- Create an information sharing system to provide access to regular and transparent information about the key actors’ (MoE/Dzongkhag/Thromde/school and other stakeholders) progress against the Blueprint.
- Publish an annual public report by the Ministry/ Dzongkhags/Thromde/schools on progress against their targets, under each initiative outlined in the Blueprint starting from the year 2015.

vii. Ensure financial sustainability and accountability

- Authorize schools with financial, human resource, and administrative powers including obtaining supplies and services (like school maintenance) for the school.
- Improve school finance management by developing Standard Operation Procedure (SOP) and setting standard accounting and auditing systems.
- Allow schools to raise their own funds which will necessitate a school-based fund development policy.
- Introduce the cycle cost (expenditure per graduate of level or “cycle” of schooling and by “type”) as a measure to improve school quality or efficiency dimension. Funding per student should reflect information on learning outcomes to increase the quality of education.
- Adopt measures, like attrition and repetition rate, examination achievement, graduation rate, including access and equity and social and economic success as measures of school quality or effectiveness.
- Provide schools with land (or lease land) to grow their own vegetables and other food/cash crops to improve nutritional values, ensure food sufficiency, and to encourage students to take up agriculture related activity.

4.6 Shift Six: Leverage ICT for learning

Why is it needed?

ICT is a tool that is used to facilitate inclusiveness by enabling citizens to access information and knowledge, and to make education more relevant and easier to administer. The application of ICT will transform the education practices in the country by establishing necessary platform for effective communications.

What success will look like?

The ministry and the schools function systematically by embracing and using ICT as a tool to enhance effective communication. Teachers and principals have access to both national and international learning resources to enhance their professional standing. Students successfully use ICT to explore and extract relevant content to enrich their learning.

i. Implement the ‘iSherig’ (Education ICT Master Plan)

- Develop the capabilities and capacities of students, educators, supporting staff and the Ministry so as to best utilize the many investment into infrastructure, systems and content in the sector.
- Develop the content for an ICT-driven curriculum to support a vibrant ICT-led teaching and learning environment across Bhutan.
- Enhance access to ICT resources, computers and the internet in the education institutions and communities to support teaching and learning across the country.
- Establish governance structures to drive the implementation of ICT projects in the education sector.

4.7 Shift Seven: Enhance values education and wellbeing

Why is it needed?

There is a need to scale up support to schools in integrating values in curricular and extracurricular contexts in the development of student responsibility, social skills, resilience and wellbeing. This will help in personal development of students through the inculcating values and wellbeing in education. It is a common belief that character is the most ‘precious gift of education’ that is essentially shaped and built through values education.

Youth comprises the largest section of the Bhutanese population. They are viewed as major human resource,¹² and greatest source of hope for a nation’s future. With increased exposure to different forms of media youths are exposed to hundreds-even thousands-of images and ideas, all influencing the way people think and live their lives. They are also most vulnerable from major socio-economic challenges, unemployment, low income, substance abuse, crime and violence, including health issues etc. The rising trend in these areas, calls upon renewed impetus for synergized efforts in planning, implementation and evaluation of youth programmes.

The quality of education that is provided now will determine the kind of citizens for the future. In a fast changing globalised world, as Bhutan aspires to preserve its unique culture and tradition through the GNH development philosophy, it is essential that GNH views, values and principles are deeply embedded in the consciousness of the large population of youth.

Thus, in 2010, the Ministry implemented “Educating for GNH” programme as a strategy to embrace and advance the vision of GNH through education. GNH values and principles are taught through five pathways; meditation and mind training, infusing GNH values into the curriculum, holistic assessment of students, broader learning environment, and media literacy and critical thinking skills.

The programme is reported to have brought about excellent behaviour change in both teachers and students. It has also contributed in improving school physical ambience such as campus beautification, cultural programmes, gardening, games, and club activities.

What success will look like?

School graduates as global citizens are imbued with GNH values and strong Bhutanese identity. The values they have learnt are applied in their daily lives and are evident in their interactions, civic behaviour, and increased volunteerism. Students as critical thinkers, are responsible, and create harmony in the society. All teachers and principals are role models and are practitioners of GNH values in schools and the community.

Game Changing Initiatives

i. Strengthen sustainability of Educating for GNH

- Strengthen teacher and principal capacity through refresher courses on Educating for GNH to strengthen practices in schools by providing the necessary resources.
- Create Professional Learning Community (PLC) in schools to share experiences of infusing GNH values in their subjects and document best practices for sharing with other schools.
- Collaborate with COEs to develop a separate compulsory module on Educating for GNH and/or strengthen the incorporation of GNH values in the pedagogy modules for the pre-service teachers.
- Consciously practice GNH values and principles in all schools activities and programmes and in day-to-day interactions and living.
- Monitor and support implementation of the programme by the Ministry and DEOs/TEOs.
- Strengthen the use of School Self-Assessment Tools and School Improvement Plans to ensure proper planning and implementation of Educating for GNH and Child Friendly School

initiatives by all schools.

ii. Upscale the implementation of youth education programmes

- Create avenues for student attachment/internship programmes during the vacation in collaboration with the multi-sectorial partners.
- Strengthen the parenting education and school-based guidance and counselling programmes.
- Provide enhanced youth friendly facilities, services and programmes and encourage mass participation of children in sports and physical activities.
- Strengthen the provision of water, sanitation, and hygiene and life skills education in schools.
- Enhance and upscale the national scouting, culture and values education in schools.
- Enhance and encourage youth participation, volunteerism, and networking among youths.
- Strengthen the provision of career guidance and counselling services.
- Ensure periodic monitoring and evaluation of youth education programmes at various levels (Ministry, Dzongkhag and Schools).

4.8 Shift Eight: System transformation, delivery capabilities and capacity

Why is it needed?

The journey of one hundred years of educating the nation has elevated the status of the nation to what it is today. However, meeting the system aspirations to improve access, quality, equity, and system efficiency will require transforming the way the system operates. Instituting an efficient system of education delivery, entails ensuring clear delegation of responsibilities to the staff at various position levels.

The OD findings of 2014, and discussions with schools, Dzongkhags/Thromdes level administrators, have raised a need to streamline the planning and coordination amongst stakeholders to avoid duplication of functions within the divisions,

departments, ministry secretariat and Dzongkhags at the systemic level. Institutional strengthening and capacity building have been reflected in the 11th FY plan both within the MoE and stakeholders such as BCSEA and REC. The need for an integrated MoE complex, housing all departments has been pointed out as urgent.

Establishing international schools/institutions in Bhutan will act as deterrence to reducing the youth movement out of the country both for studies and international jobs overseas since private international schools will cater to their study needs. This will also encourage local schools/institutions to help improve quality of education and meet the diverse learning needs of education besides increasing access to quality education for Bhutanese students.

Despite achieving many significant milestones, studies indicate that there are substantial gaps between the current and desired state in the provision of quality education. The system continues to suffer from weak human resource management system, imbalanced resource allocations, ad-hoc professional development programmes and weak legal provisions.

Transformation of socio-economic and political system in the country leads to complexities in the education system, thus requires accelerated planning, implementation and management. Given the rapid development and evolution of the system, there is a genuine need to institute a legal framework for the education sector.

What success will look like?

The functional and organisational structure of the Ministry, Dzongkhags and Schools is reorganised and redesigned for efficient service delivery. Human resource development strategy for each agency is clearly spelt out with clearly defined mandates of all officials at all levels. The system is manned by highly creative, skilled, productive, and enterprising personnel who are endowed with cultural and spiritual values.

Coordination amongst different agencies within the

ministry and other stakeholders is efficient and on a larger and broader scale. Schools receive effective professional support and adequate resources to enhance student learning. Few international schools/institutions are established, and number of ECCD centres, schools and tertiary institutions increased through close collaboration with the education stakeholders and private partners.

All offices under the Ministry are housed within an integrated complex for efficient service delivery. There is a robust EMIS system at all levels of administrative structure which provide basis for evidence-based policy formulation, implementation, monitoring and evaluation. The policies and directives are in line with the national aspirations, education goals and objectives at all levels. The government has clear mandates to ensure increased access, equity, quality, and system efficiency and implementation of the Education Act.

Game Changing Initiatives:

i. Reorganise the organisational and functional structure at the Ministry level

- Restructure ministry, secretariat and departments in the light of the reconstituted REC and its mandates.
- Redefine the roles and responsibilities of officials at the Ministry secretariat and Departments to expedite coordination, collaboration and service delivery.
- Develop and implement human resource development strategy for the secretariat and department to upscale their capabilities and capacities.

ii. Reorganise the organisational and functional structure at the Dzongkhag/Thromde level

- Redefine the roles and responsibilities of DEOs/TEOs.
- Strengthen and empower Dzongkhag/Thromde education offices by rationalising the manpower requirement to provide strong professional

support to schools.

- Empower DEOs/TEOs with greater operational flexibility and accountability to deliver tailored solutions to schools.

iii. Reorganise the organisational and functional structure at school level

- Provided autonomy to schools in terms of finance, human resource, curriculum and professional development.
- Restructure staffing pattern to enhance instructional leadership of the principals, in consultation with the RCSC.
- Strengthen school management boards for effective functioning of schools.
- Strengthen parent and community participation/engagements to enhance student learning outcomes.

iv. Establish at least 1-2 private international schools/institutions

- Encourage public-private participation to establish international schools to benchmark national schools/institutions, and bring in cross-fertilisation of ideas in enhancing quality of education.

v. Enhance institutional coordination and collaboration

- Strengthen institutional coordination and collaboration among education partners, such as REC, BCSEA, RUB, Departments under the ministry and other relevant stakeholders and NGOs, agencies etc.
- Draw- up a time bound memorandum of understanding among education stakeholders to accelerate education system delivery.

vi. Initiate and institutionalize Education Act

- Formulate Education Act through multi-sectorial participation and consultation.

vii. Establishment of National Teacher Council

- Establish National Teacher Council to create efficient mechanism for teacher registration and licensing, establishes and monitors standards for in-service and pre-service teachers, review and revise the code of professional conduct and addresses issues concerning teachers.

viii. Build a customized ministry secretariat office complex

- House all the departments and divisions in a single campus for better coordination and collaboration through improved networking to enhance service delivery and ensure efficient resource sharing.

ix. Improve timeliness and reliability of data for better policy formulation and implementation

- Ensure timely and reliable data is available for better understanding of the function of the education system and for enhancing access, equity and quality of education
- Strengthen the Educational Management Information System (EMIS) by integrating the Student Achievement Tracking System (SATS) to provide a comprehensive database of students, teachers, and schools which is accessible at various levels.



Chapter 5

DELIVERING THE SHIFTS

Chapter 5

DELIVERING THE SHIFTS

“There are gaps between commitments and outputs. We’re unable to deliver results of expected quality and in a timely manner...There is limited communication and coordination among agencies and this invariably leads to lack of coherence...If we dedicate ourselves towards finding solutions and applying them to the problem, no problem is insurmountable.”

– His Majesty the King’s address at the National Day Celebration, December 17 2013

Providing an engaging and meaningful experience for Bhutanese students requires commitment to continuous innovation of new ideas and ways of doing things in the classroom, the schools, the Dzongkhags, and the Ministry. This demands transformation of the schools, Dzongkhags and the Ministry from being bureaucratic institutions into learning organizations. The transformed system will be able to meet the aspiration of the *Tsa-Wa-Sum* (King, Country, and the People) by preparing Bhutanese children to be world ready with knowledge and understanding; communicative, intellectual, social, emotional, leadership competence; enduring habits of lifelong learning; family and community values; character; physical wellbeing; and national identity.

From the outset it must be acknowledged that internationally many transformation efforts in education have failed due to dwindling will, time and commitment from the political and ministry leaders, inability to stay the course under intense challenge from those opposed to the change, paralysis in the face of polarizing debates led by teachers and other stakeholders, resistance to change amongst teachers, or capacity gaps within the ministry. Although, the aforementioned obstacles are intimidating, it is vital

that Bhutan rises and overcomes these challenges to deliver and meet the national vision and aspirations of its people.

5.1 Sequencing the Initiatives

As outlined and discussed in Chapter 2, there are four broad thematic areas: access to education, quality education, equity in education, and system efficiency. As illustrated in Chapter 4, there are eight shifts and forty game changing initiatives identified to guide the implementation of the Blueprint.

Each of the initiatives is important on its own, however, for systematic implementation, the initiatives have been sequenced in order to not overwhelm and overburden the system.



5.2 Eight Shifts and Forty Game Changing Initiatives

SHIFT 1	SHIFT 2	SHIFT 3	SHIFT 4	SHIFT 5	SHIFT 6	SHIFT 7	SHIFT 8
Enhance access and equity to education	Revamp curriculum & assessment to enrich student learning	Raise learning outcomes of students comparable to international standard	Transform teaching into a profession of choice	Ensuring high-performing schools and leaders	Leveraging ICT for learning	Enhance values education and wellbeing	System transformation, delivery capabilities and capacities
<ul style="list-style-type: none"> * Enhance access to ECCD programme * Enhance access to basic, higher secondary, and technical/vocational education * Enhance access to tertiary education * Enhance access to special education programme * Expand access to NFE and CE programmes * Bridge the learning gap * Minimize rural-urban differences * Improve gender equity 	<ul style="list-style-type: none"> * Restructure/ Reorganize education pathway * Benchmark school curriculum to international standards * Revamp assessment system 	<ul style="list-style-type: none"> * Transform teaching learning practices * Facilitate students' to be independent learners * Ensure physical and psychosocial ambiance * Recognise and reward high performers 	<ul style="list-style-type: none"> * Raise teacher morale and motivation * Enhance the quality of Professional Development (PD) programmes * Implement competency and performance-based career progression * Raise the entry bar for teachers * Revamp teacher preparation programmes in the Colleges of Education 	<ul style="list-style-type: none"> * Empower schools to promote good governance * Ensuring high-performing school leaders * Empower teachers to enhance student learning * Strengthening involvement of parents and community * Ensure classroom and school infrastructure meet the minimum standards * Anchor the system to common goals * Ensure financial sustainability and accountability 	<ul style="list-style-type: none"> * Implement the 'iSherig' (Education ICT Master Plan) 	<ul style="list-style-type: none"> * Strengthen sustainability of Educating for GNH programme * Strengthen monitoring and evaluation of Educating for GNH programme * Upscale the implementation of youth education programmes 	<ul style="list-style-type: none"> * Reorganise the organisational and functional structure at the Ministry level * Reorganise the organisational and functional structure at the Dzongkhag/Thromde levels * Reorganise the organisational and functional structure at the school level * Establish at least 1-2 Private International Schools/institutions * Enhance institutional coordination and collaboration * Initiate and institutionalize Education Act * Establish Teacher Council * Build a customized ministry secretariat office complex * Improve timeliness and readability of data for better policy formulation and implementation

5.3 Bhutan Education Transformation Journey

The education transformation will take place over a period of 10 years. There are three waves: Wave 1 from 2014 – 2017; Wave 2 from 2018 – 2020; Wave 3 from 2021 – 2024. In each Wave, there are

several game changing initiatives. Wave 1 focuses on laying the foundation and initiating the recommended interventions to turn around the system; Wave 2 focuses on accelerating the roll out of shifts and game changing initiatives to improve the system and Wave 3 focuses on moving towards excellence.



Bhutan Education Transformation Journey

THEMATIC AREA		WAVE 1 (2014- 2017) System turn around	WAVE 2 (2018- 2020) Accelerate system improvement	WAVE 3 (2021- 2024) Move towards excellence
Access	ECCD	<ul style="list-style-type: none"> ECCD programmes reinforced through advocacy Number of ECCD centres/schools increased (especially in rural areas) Early Learning Development Standards for ECCD implemented and monitored 16 percent GER achieved (GER 2014 in ECCD is 10 percent) 	<ul style="list-style-type: none"> Implementation of Early Learning Development Standards for ECCD strengthened 29 percent GER achieved 	<ul style="list-style-type: none"> Access to quality ECCD programme enhanced Early Learning Development Standards for ECCD are achieved by all centres 50 percent GER achieved
	Basic, higher secondary, and technical/vocational education	<ul style="list-style-type: none"> 97 percent NER in Primary education achieved (NER 2014 in primary education is 95 percent) 89 percent NER in Basic education achieved (NER 2014 in basic education is 85 percent) 59 percent GER in Higher Secondary achieved (GER 2014 in Higher Secondary is 59 percent) 11 percent GER in TVE achieved (GER 2014 in TVE is 8 percent) Pre-vocational orientation to grade VII and VIII students introduced Diversification of TVE courses for grade IX to XII expanded Quality of technical/vocational programme enhanced 1-2 additional technical/vocational institutes established 	<ul style="list-style-type: none"> 98 percent NER in primary education achieved 94 percent NER in basic education achieved 60 percent GER in higher Secondary achieved 14 percent GER in TVE achieved TVE courses in all schools across the country rolled out Number of technical/vocational institutes increased 	<ul style="list-style-type: none"> Near 100 percent NER (primary& basic education) achieved 60% percent GER in higher secondary education achieved At least 20 percent GER in technical/vocational education by 2024 (40 percent by 2034 achieved) Access to basic, higher secondary, and technical/vocational education enhanced and strengthened
	Tertiary education	<ul style="list-style-type: none"> Private sector participation facilitated Diversification of tertiary programmes initiated Bhutan Qualification Authority established Financial support to students from economically disadvantaged family strengthened and sustained Institutional collaboration and linkages (within and outside the country) enhanced 22 percent GER achieved (GER 2014 within the country is 19 percent) 	<ul style="list-style-type: none"> 1-3 public/private colleges/institute to be established Diversification of tertiary programmes strengthened 26 percent GER achieved 	<ul style="list-style-type: none"> Access to tertiary education enhanced 31 percent GER achieved
	Special education programme	<ul style="list-style-type: none"> Students with mild to moderate disabilities to be identified and integrated into mainstream schools Differentiated teacher training for special needs incorporated in the CoEs/training programmes Needs of different student ability groups including gifted students supported and strengthened Private and tertiary institutions to support SEN students initiated 20 percent GER achieved (GER 2014 is about 10 percent) 	<ul style="list-style-type: none"> Number of SEN schools increased Mainstream schools provided with user-friendly facilities such as ramps, railings, handicap toilets etc. Private and tertiary institutions to support SEN students enhanced 35 percent GER achieved 	<ul style="list-style-type: none"> Access to special education programme enhanced and expanded 50 percent GER achieved
	NFE and CE programmes	<ul style="list-style-type: none"> Qualified instructors in NFE centres deployed Monitoring system to assess learners' performance, course completion time and completion rate ensured TVE course/programmes to be included in the CE programmes Continuing education programme to tertiary level expanded 60 percent adult literacy achieved (adult literacy 2014 is 55 percent) 	<ul style="list-style-type: none"> TVE course/programmes to be expanded in the CE programmes 70 percent adult literacy achieved 	<ul style="list-style-type: none"> Access to NFE and CE programmes expanded 80 percent adult literacy by 2024 achieved
Quality	Restructure education pathways	<ul style="list-style-type: none"> Restructured curriculum pathway to enable variety of elective subjects besides the core subject for students (secondary classes onwards) (refer figure 2.5 above) Liase with MoLHR, RUB, UMSB and relevant stakeholders to facilitate certification and lateral transition of students between mainstream schools, TVET Institutes and University 	<ul style="list-style-type: none"> Different education pathways implemented Lateral transition to pursue different pathways facilitated 	<ul style="list-style-type: none"> Education pathways restructured Lateral transition and certification established
	Benchmark school curriculum to international standards	<ul style="list-style-type: none"> A system of periodic curriculum and assessment review cycle established/initiated Initiated review and revision all school curriculum Developed standard framework for curriculum materials to ensure high quality teaching learning Initiated validation of school curriculum by international validation institutions for benchmarking and recognition 	<ul style="list-style-type: none"> Completed review and revision of school curriculum Continued validation of school curriculum by international validation bodies Initiated process of international testing system of student learning 	<ul style="list-style-type: none"> School curriculum benchmarked to international standards Completed validation of all school curriculum Take part in at least one international testing system of student learning
	Revamp assessment system	<ul style="list-style-type: none"> The assessment system strengthened (School based assessment system / High stake examination system) Teachers trained to practice holistic approach to assessment at all levels Trial examinations system for grade X and XII reviewed 	<ul style="list-style-type: none"> The current high stake examinations system reviewed to test student learning competencies 	<ul style="list-style-type: none"> Assessment system revamped Competency based high stake examinations institutionalized
	Transform teaching learning practices from the culture of fear to culture of engagement	<ul style="list-style-type: none"> Professional Developments provided to principals and teachers focused on 21st century teaching and learning Review and strengthen assessment practices 	<ul style="list-style-type: none"> Provide focused CPD programmes to principals and teachers focusing on 21st century teaching skills 	<ul style="list-style-type: none"> Transformed teaching learning practices from the culture of fear to culture of engagement
	Ensure physical and psychosocial ambience	<ul style="list-style-type: none"> The ambience in and around the school enhanced to enable students to be study-ready Enhanced student support programme such as counseling services, life skill education, scouting, etc. Healthy and nutritious diet to the boarding schools and schools that are entitled for day meal provided 	<ul style="list-style-type: none"> Student support programme such as counseling services, life skill education, scouting, etc. strengthened Healthy and nutritious diet to the boarding schools and schools that are entitled for day meal continued 	<ul style="list-style-type: none"> Physical and psychosocial ambience ensured
	Recognize and reward high performers	<ul style="list-style-type: none"> Initiate and sustain award system at different grade levels to enhance students' academic learning outcome, encourage creativity and innovation, and strengthen the co-curricular and extra-curricular activities Strengthen and sustain the existing student award and recognition system. 	<ul style="list-style-type: none"> Student award and recognition continued and sustained 	<ul style="list-style-type: none"> Student award and recognition instituted Students learning promoted through recognition and award system at various platforms such as school, Dzongkhag and National level for high achievers and for students showcasing creativity and innovation
	Raise teacher morale and motivation	<ul style="list-style-type: none"> An autonomous body established to address the professional needs of the teachers including their welfare and redressal Proper accommodation for teachers in the remote schools provided Positive school culture wherein teachers' participate actively in decision making encouraged Reduced work load of teachers by them focusing their time on teaching and learning only Recruited staff or engaged community/parents to conduct extra-curricular activities Provide attractive remuneration and additional incentives to teachers Ensured stringent implementation of THRP 2014 and teacher deployment guidelines 	<ul style="list-style-type: none"> Strengthened implementation of THRP 2014 	<ul style="list-style-type: none"> Teacher morale and motivation raised THRP 2014 reviewed
	Enhance the quality of Professional Development (PD) programmes	<ul style="list-style-type: none"> Created forum for sharing of best practices including research works Developed an individualized Continuous PD programme with MLT, CLT, or SLT SBIPs enhanced Strengthened CIE Incorporated Use of ICT in teaching-learning process Regular funds allocated for the conduct of PD at cluster and school level 	<ul style="list-style-type: none"> Professional learning community strengthened 	<ul style="list-style-type: none"> Created a peer-led culture of professional excellence
	Implement competency and performance-based career progression	<ul style="list-style-type: none"> Encouraged Schools to effectively administer the standard Performance Appraisal System (PAS) focusing on teacher's ability to deliver effective instruction Rewarded high performing teachers in the form of out-of-turn promotion, national and regional awards and consideration of fellowship/scholarship 	<ul style="list-style-type: none"> Recognition and award of high performing teachers strengthened 	<ul style="list-style-type: none"> Achieved competency and performance-based career progression
	Raise the entry bar for teachers	<ul style="list-style-type: none"> Rigorous interview conducted to check aptitude of would-be-teachers Stringent recruitment from the top 30 percent grade XII graduates started Stringent recruitment of teacher graduates from the Colleges of Education instituted through competency test in English and elective subjects 	<ul style="list-style-type: none"> Stringent recruitment from the top 30 percent university graduates 	<ul style="list-style-type: none"> Entry bar for teachers raised Top graduates recruited into the teaching profession
Revamp teacher training preparation programmes in the colleges of education	<ul style="list-style-type: none"> Trainee teachers are excellently prepared in the colleges Rigorous and effective teaching practicum through close mentoring and supervision by the respective subject heads, MLT, CLT and SLT ensured Selection criteria of the new lecturers and up skill the existing lecturers in the Colleges of Education enhanced Duration and programme for PGDE course reviewed 	<ul style="list-style-type: none"> Teaching practicum strengthened Competent new lecturers recruited in CoE 	<ul style="list-style-type: none"> Teacher preparation programmes in the Colleges of Education revamped Teacher preparation programmes of quality 	

THEMATIC AREA		WAVE 1 (2014- 2017) System turn around	WAVE 2 (2018- 2020) Accelerate system improvement	WAVE 3 (2021- 2024) Move towards excellence
	Ensuring high-performing school leaders	<ul style="list-style-type: none"> Principals empowered by giving them more autonomy with accountability Intensive induction programme for newly recruited school principals institutionalized High performing principals recognized through fast tracked career progression and awards Continuous and sustained PD programmes provided to Principals Selection criteria for principals enhanced 	<ul style="list-style-type: none"> System of succession planning mechanism that identifies and grooms high-potential individuals ensured 	<ul style="list-style-type: none"> High-performing school leaders ensured
	Empower teachers to enhance student learning	<ul style="list-style-type: none"> Induction course for new teachers institutionalised Continuous and sustained CPD programmes provided to teachers to enhance knowledge, skills and aptitude Teachers engaged as full partners in creating high-performing schools Peer-led culture of professional excellence initiated 	<ul style="list-style-type: none"> Peer-led culture of professional excellence strengthened 	<ul style="list-style-type: none"> Student learning enhanced by empowered teachers
	Ensure classroom and school infrastructure meet the minimum standards	<ul style="list-style-type: none"> Every school provided with the minimum infrastructure requirements to create a safe, hygienic, and conducive environment for learning regardless of its location, size, or type. Equip classrooms suitably to ensure it meets the recommended ideal size of a class of 24 for primary and 30 for secondary Monitoring guidelines and evaluation system developed to fix accountability and ensure proper maintenance of the infrastructure 	<ul style="list-style-type: none"> Cost effective designs explored and implemented to ensure eco-friendly, disaster-resilient, energy efficient and easy to maintain schools 	<ul style="list-style-type: none"> Classroom and school infrastructure ensured to meet the minimum standards
	Implement the 'iSherig' (Education ICT Master Plan)	<ul style="list-style-type: none"> iSherig Master Plan implemented Capacity building (iAble) for educators, students and support staff enhanced ICT integration (iBuild) into curriculum, pedagogy and assessment enhanced Nationwide education and learning ICT infrastructure and system (iConnect) expanded 	<ul style="list-style-type: none"> iAble, iBuild and iConnect strengthened 	<ul style="list-style-type: none"> ICT enabled education system realised Review the iSherig
	Strengthen sustainability of Educating for GNH programme	<ul style="list-style-type: none"> Strengthened Educating for GNH (eg. refresher course, seminars, Professional learning communities, AV, etc) Compulsory module on Educating for GNH for the pre-service teachers developed in collaboration with RUB Ministry and DEOs/TEOs to monitor and support the implementation of Educating for GNH 	<ul style="list-style-type: none"> Compulsory module on Educating for GNH implemented at the CoEs Use of School Self-Assessment Tools and School Improvement Plans strengthened 	<ul style="list-style-type: none"> Sustainability of Educating for GNH programme strengthened
	Upscale the implementation of youth education programmes	<ul style="list-style-type: none"> Created avenues for student attachment/internship programmes during vacations Parenting education and school-based guidance and counselling programmes strengthened Youth friendly facilities, services and programmes enhanced Provision of water, sanitation, and hygiene and life skills education in schools strengthened National scouting, culture and values education in schools enhanced Youth participation, volunteerism, and networking among youths enhanced Periodic monitoring and evaluation of youth education programmes at various levels ensured 	<ul style="list-style-type: none"> Youth friendly facilities, services and programmes strengthened National scouting, culture and values education in schools strengthened Periodic monitoring and evaluation of youth education programmes at various levels strengthened 	<ul style="list-style-type: none"> Implementation of youth education programmes up-scaled
	Establish at least 1-2 Private International Schools/institutions	<ul style="list-style-type: none"> 1-2 schools benchmarked to international level through public-private participation 	<ul style="list-style-type: none"> 1-2 international schools to established 	<ul style="list-style-type: none"> At least 1-2 Private International Schools/institutions established
Equity	Bridge the learning gap	<ul style="list-style-type: none"> Equal opportunity and access to all students regardless of their background and situation provided Equitable distribution of competent teachers and principals across the country ensured to create an enabling environment and fair opportunity to all students to achieve the full potential Extra support provided to low performing students Student ex-change programmes initiated 	<ul style="list-style-type: none"> Student ex-change programmes strengthened Support to low performing students strengthened 	<ul style="list-style-type: none"> Learning gap bridged
	Minimize rural-urban differences	<ul style="list-style-type: none"> Responsive school funding formula ensured especially for rural and remote schools Central schools established 	<ul style="list-style-type: none"> Central schools rolled out across the country 	<ul style="list-style-type: none"> Rural-urban differences minimized
	Improve gender equity	<ul style="list-style-type: none"> Strategic policy developed to enhance quality learning outcomes in girls Provision of girl-friendly boarding schools with gender sensitive facilities provided 	<ul style="list-style-type: none"> Strategic policy to enhance quality learning outcomes in girls implemented 	<ul style="list-style-type: none"> Gender equity improved
System efficiency	Empower schools to promote good governance	<ul style="list-style-type: none"> SMB strengthened to assist efficient governance of schools, including development and endorsement of the schools' strategic plan, planning, monitoring and reviewing school performance Training provided to SMB, SMT and student leaders to build the knowledge and skills in school management Induction, CPD Programmes and Professional Learning Community institutionalized in all schools Comprehensive school management manual developed and training on its usage provided Operations of schools decentralized where ever possible to communities and major stakeholders wherein the Ministry continues to support these schools Reviewed School Performance Management System 	<ul style="list-style-type: none"> Induction, CPD Programmes and Professional Learning Community in all schools strengthened School management manual implemented Decentralization of schools strengthened PMS revised for holistic assessment 	<ul style="list-style-type: none"> Schools empowered to promote good governance
	Strengthening involvement of parents and community	<ul style="list-style-type: none"> Promoted networking with the stakeholders Parent and community engagement strategy developed and implemented 	<ul style="list-style-type: none"> Parent and community involvement strengthened 	<ul style="list-style-type: none"> Active participation of parents and the community
	Anchor the system to common goals	<ul style="list-style-type: none"> School system anchored to a shared common vision Information sharing system created to provide access on the progress against the targets under each initiatives outlined in the Blueprint from 2015 onwards Ministry/Dzongkhags/Thromde/schools to publish annual progress report on the implementation of the Blueprint 	<ul style="list-style-type: none"> Review the progress made on the achievement of the Blueprint 	<ul style="list-style-type: none"> All schools working in alignment to achieving the common national goal
	Ensure financial sustainability and accountability	<ul style="list-style-type: none"> Standard Operation Procedure (SOP) developed to set standard accounting and auditing systems School-based fund development policy developed Schools allowed to raise their own funds in alignment with school-based fund development policy Strengthened school agriculture programme to improve nutritional values, ensure food sufficiency, and to encourage students to take up agriculture related activity 	<ul style="list-style-type: none"> SOP implemented School-based fund policy implemented School fund raising strengthened Up-scaled SAP 	<ul style="list-style-type: none"> Financial sustainability and accountability ensured Food and nutritional supplement assured through SAP
	Reorganise the organisational and functional structure at the Ministry level	<ul style="list-style-type: none"> The Ministry restructured in the light of the reconstituted REC and its mandates Roles and responsibilities of Ministry officials redefined Human resource development strategy developed for the secretariat and department to upscale capabilities and capacities 	<ul style="list-style-type: none"> The Ministry restructured Human resource development strategy developed 	<ul style="list-style-type: none"> Ensured efficiency of the Ministry
	Reorganise the organisational and functional structure at the Dzongkhag/Thromde levels	<ul style="list-style-type: none"> Roles and responsibilities of DEOs/TEOs redefined and streamlined DEOs/TEOs provided greater operational flexibility with accountability 	<ul style="list-style-type: none"> Dzongkhag/Thromde education offices strengthened to provide professional support to schools 	<ul style="list-style-type: none"> Dzongkhag and Thromde education offices empowered and strengthened
	Reorganise the organisational and functional structure at the school level	<ul style="list-style-type: none"> Schools provided autonomy in terms of finance, human resource, and administrative matters Enhance instructional leadership of the principals School management boards strengthened for effective functioning of schools 	<ul style="list-style-type: none"> Increased number of autonomous schools Instructional leadership of the principals strengthened 	<ul style="list-style-type: none"> Most school exercise autonomy in school management Principals are instructional leadership
	Enhance institutional coordination and collaboration	<ul style="list-style-type: none"> Institutional linkages (within and outside country) established through heightened coordination and collaboration 	<ul style="list-style-type: none"> Strengthened institutional linkages 	<ul style="list-style-type: none"> Institutional linkages established
	Initiate and institutionalize Education Act	<ul style="list-style-type: none"> Initiated dialogue for the Education Act 	<ul style="list-style-type: none"> Formulated framework for Education Act 	<ul style="list-style-type: none"> Education Act enacted
	Establishment of Teacher Council	<ul style="list-style-type: none"> Initiated dialogue for the Teacher Council 	<ul style="list-style-type: none"> Formulate framework for Teacher Council 	<ul style="list-style-type: none"> Teacher Council established
	Build a customized ministry office complex	<ul style="list-style-type: none"> The building of a customized ministry secretariat office initiated and completed 	<ul style="list-style-type: none"> Ministry functioning smoothly 	<ul style="list-style-type: none"> Ministry functioning smoothly
	Improve timeliness and reliability of data for better policy formulation and implementation	<ul style="list-style-type: none"> Timely and reliable information of the education system ensured Integrated EMIS and SATS 	<ul style="list-style-type: none"> EMIS strengthened 	<ul style="list-style-type: none"> Dynamic and robust EMIS established



“If we decide to change the way we are expected to think and behave. If we, in this room, seize this chance to do things differently. If we act without waiting for great leaders to be born. If we can believe in the extraordinary potential of simple human values then we can be the generation that made the difference – the generation with a conscience – the generation that the world has waited for, for so long.”

– His Majesty’s the King’s address at the Convocation of the University of Calcutta, October 5 2010

5.4 Delivering the Transformation

Currently many agencies within the MoE are engaged in monitoring education inputs, processes and outputs. Departments and independent agencies in education have different mandates to collect, compile and disseminate education reports, hence, they function compartmentally resulting in overlapping roles and responsibilities, duplication of work, and agencies becoming very territorial thereby hampering the overall coordination, communication and delivery. For example, BCSEA does the assessment and evaluation of student learning and performance, EMSSD does the ranking of schools, PPD does the planning, coordination and monitoring of various programmes within the Ministry, while the REC conducts studies such as ASSL and TNA.

Considering the significance of the Education Blueprint and mindful of the international experience in managing transformation, it is imperative to establish a time bound independent/autonomous agency to monitor and ensure the implementation of the Blueprint in partnership with the Ministry of Education. This agency will coordinate and collaborate with the existing agencies to expedite implementation and exercise authority to streamline monitoring mechanism to make it more systematic and efficient.

All the shifts and initiatives of the Blueprint will be categorized and sorted by this new office to fit the mandate of the existing educational agencies so as to ensure no overlap of roles and responsibility in implementation. For example, the proposed office will collaborate with:

- REC to take up all professional development of teachers (in-service), curriculum development and research;
- BCSEA to address all initiatives related to student assessment and evaluation;
- RUB to address all initiatives related to teacher preparation programmes (pre-service) and so on.

5.5 Monitoring and Evaluation

Monitoring and evaluation should provide feedback to improve the performance of each agency involved. The principals are responsible for measuring improvements of their own school and the DEOs are responsible to ensure the inputs, process and outcomes of education in their respective jurisdiction are met.

The central level agencies engaged in monitoring education performance should inform the outcomes of the monitoring to the DEOs and schools with its feedback for improvement in the performance. The linkages between schools, DEOs, and the central level agencies should be strengthened by introducing two ways of communication.

At present, some central level agencies are collecting, compiling, and disseminating different types of education information, for example, REC, PPD-MoE, EMSSD, etc. REC - an autonomous agency conducts studies such as the ASSL and TNA; EMSSD, MoE – collects information from DEOs to rank the schools in Bhutan, whereas the PPD of MoE collects school, student and teacher information annually to monitor the overall educational outcomes. The collected information is very useful to improve the

access, equity and quality of education. However, the timeliness, quality and coverage are some issues that need to be addressed. There is a strong link between the quality of collected data and its usage. If the quality of data is poor, then planners and policy makers will not be able to effectively use the data for improvement. In this context, it is equally important to use the evidence properly to introduce policy initiatives and act on the findings of the monitoring and evaluation.

At the Dzongkhag level, the DEOs will coordinate with the proposed independent agency to streamline the monitoring and evaluation mechanism to improve the delivery. The capacity of principals and DEOs on monitoring and evaluation should be enhanced and the findings of the monitoring and evaluation will be incorporated in the next fiscal year plan.

5.6 Financing the Transformation

The proportion of the budget allocation to the education sector, including RUB, continued to be around 11 percent against the emerging priorities and competing demands from other sectors. Currently, the government is providing recurrent costs to cover teachers' salary, free textbooks, scholarships, school feeding programmes etc. on earmarked basis to the schools. The non-salary recurrent cost and adequate infrastructure are equally important to enhance the quality of education. It is important to note that the budget proposed here are only indicative, it can change during programme implementation in order to respond to changing contexts and needs.

1) Methodology of Simulating Financial Requirements for the Implementation of the Bhutan Education Blueprint 2014-2024

Expenditure on education, whether by the state or households, has been treated as investment flows that build human capital.⁴⁴ As the amount of attention and resources spent on education has increased so has the importance of ensuring the efficiency and relevance of these programmes and their long-term impact. In this respect, the establishment of coordinated and tailored strategies at national level has been widely

considered to be one of the best means to achieve these efficiency goals.³⁴

The funding requirement has been calculated from the perspective of sectorial approach covering direct costs (excluding costs for communities, parental) - the recurrent and capital expenditures. This section presents the data, process and results of the financial simulation conducted based on the baseline data and the policy targets set by the Bhutan Education Blueprint 2014-2024.

To serve as a tool for exploring the education development options in a dynamic, interdependent and evolving context, various simulation models have been designed to test the realism, coherence and credibility of different education development options and policies using a computer-operated simulation model. A simulation model was created to fit the specificities of the education system in Bhutan (Fig. 5.1).



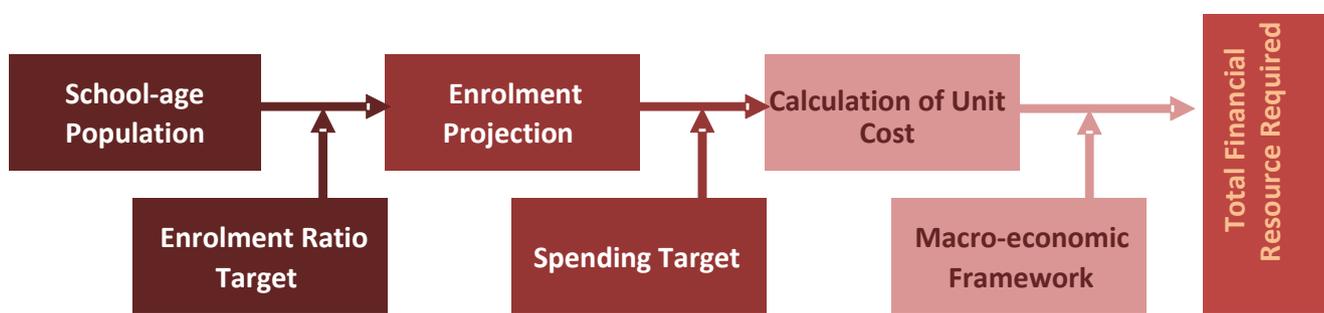


Figure 5.1 Structure of the Bhutan Education Blueprint simulation model

The results presented in this section are sector-wide to cover the scope of the Education Blueprint. The main timeline is set for 2024 to show the possible development patterns of the education system in Bhutan over the Blueprint period.

The data and information used to set the baseline, as well as the sources used, are presented and, where necessary, described below in this chapter. The baseline data used are from the 2013/2014 academic year published in the AES (2014) and Statistical Yearbook of Bhutan (NSB, 2014).

All costs in the following tables are presented in Million Ngultrum in the 2014 current price, unless otherwise specified. The details of the simulation model are presented in the Appendix IV.

Overview of the Baseline Data

An Education Blueprint Cost Simulation Model was developed as a necessary step for strategic planning, and to appraise the key education policy interventions. The model has been tailored as far as possible to fit the Bhutanese education system specificities, both for the resource framework and for the expenditure blocks. The level of sophistication and disaggregation of the model was determined by the key features of the education system per level of education, the policy interventions proposed in the Education Blueprint, as well as the available data to set the baseline and the targets.

1. Population and Education Data

Projected population was obtained from the Population Projections of Bhutan 2005-2030 (National Statistics Bureau) based on the Population and Housing Census of Bhutan, 2005. Most of the education-related data, namely number of students, enrolment rates (except tertiary education), teaching/non-teaching staff and infrastructure, were drawn from the AES 2014.

2. Cost-related Data and Financial Framework

The financial projection is based on the unit cost of each level of education. The unit cost is derived based on the available information at the national and international level. After deriving unit cost of each level including the Technical Vocational Education and Training (TVET) based on the public enrolment projection, the total cost is derived. Due to unavailability of the required information the projection did not calculate the cost of each activity nor calculate the cost in constant price. Instead, key resource extensive initiatives (e.g., expanding ECCD to all children) were included in the model (Table 5.2).

3. Key Features of the Education Sector Overview (2014-2024)

Table 5.1 shows the demographic trends of Bhutan that determine school population over the period of the Blueprint (2014-2024). From the population

projection, it is expected that the school-age population will fluctuate quite significantly over the Blueprint period, which will affect the student enrolment and therefore resources required.

Table 5.1 School-age population, 2014-2024

	2014	2016	2018	2020	2022	2024
ECCD (3-5)	49,465	52,240	50,542	47,158	45,120	42,676
Primary (6-12)	97,440	103,096	109,078	116,007	115,163	111,826
Lower & Middle Secondary (13-16)	52,875	51,229	53,283	55,906	59,596	64,042
Higher Secondary (17-18)	29,131	27,659	25,800	23,368	25,932	29,659
Tertiary Education (19-23)	76,104	74,462	68,342	67,284	65,523	64,174

(Source: Population Projection of Bhutan (2005-2030))

Below Table 5.2 presents some of the key indicators and assumptions used in simulation.

Enrolment in ECCD will increase significantly between 2014 and 2024, from 10 percent to 50 percent with the share of children in private ECCD increasing from 0.3 percent to 30 percent. By 2024, Bhutan aims to achieve universal coverage of basic and higher secondary education (PP-XII).

Student-teacher ratios are expected to increase for ECCD from the current level of 11:1 to 20:1. Student-teacher ratio for school education is expected to remain at the current level, while recognizing the needs for improving teacher deployment as discussed in this Blueprint. The percentage of students in boarding schools is expected to grow from 24 percent in 2014 to 50 percent in 2024, as a result of the introduction of the central school system.

Another key intervention of the Bhutan Education Blueprint is expansion of coverage of special education. In the simulation, it is expected that the coverage of special needs education in school education will increase from the current level of 0.2 percent³⁶ to 1.4 percent over 10 years.

Table 5.2 Key indicators (Baseline and Target)

Indicator	Baseline 2014	Target 2024
Gross enrolment ratio		
ECCD	10%	50%
Primary	113%	100%
Lower and Middle Secondary	96%	100%
Higher Secondary	59%	60%
Of which: TEVT	8%	20%
Tertiary Education (studying in Bhutan)	19% ¹	31%
Enrolment in non-formal and continuing education		
Non-Formal Education	8,079	20,955 (10% increase annually)
Continuing Education	2,096	5,436 (10% increase annually)
Net enrolment ratio		
Primary	95%	100%
Lower and Middle Secondary	85%	100%
Higher Secondary	27%	100%
Student-Teacher Ratio		
ECCD	11	20
School Education ²	20	20
Tertiary Education	18	18
% of students in boarding schools		
Primary	24%	50%
Lower & Middle Secondary	24%	50%
Higher Secondary	24%	50%
% of special needs education students (PP-XII)	0.26%	1.35%

[1] GER for tertiary education was calculated using the definition of UNESCO Institute for Statistics (UIS), by dividing the total enrolment in tertiary education by total population of the age group of 19-23 years old.
[2] Due to the school management structure of Bhutan, disaggregated data on teachers by level of education are not available. Hence the projection is done at the school education level as a whole (primary to higher secondary).

(Source: Bhutan Education Blueprint Cost Simulation Model)

Based on the assumptions above, the simulation model produced the results presented in Table 5.3.

Table 5.3 Key simulation results, 2014-2024

	2014	2016	2018	2020	2022	2024
ECCD						
Number of students	4,896	7,208	9,621	13,676	17,597	21,338
% of students in private ECCD	29%	29%	29%	29%	30%	30%
Number of teachers required (public)	435	571	679	861	987	1,067
Total number of ECCD centers (public)	159	233	310	439	562	679
Primary						
Number of students	101,667	113,685	117,377	121,819	118,013	111,826
% of student in private schools	20%	20%	20%	20%	20%	20%
Number of classrooms (public)	2,342	2,615	2,695	2,793	2,702	2,556
Lower and Middle Secondary						
Number of students	53,329	49,583	51,994	55,001	59,111	64,042
% of students in private schools	20%	22%	24%	26%	28%	30%
Number of classrooms (public)	2,590	2,658	2,791	2,950	3,161	3,405
Higher secondary						
Number of students	17,397	16,374	15,325	13,927	15,507	17,795
Of which: TEVT	1,405	1,684	2,017	2,411	2,879	3,403
Number of classrooms (public)	661	613	566	506	555	627
Number of School Education Teachers (public)	8,657	8,982	9,235	9,537	9,632	9,683
Tertiary Education						
Number of students	14,763	15,864	15,992	17,292	18,494	19,894
Number of academic staff	632	881	888	961	1027	1105

(Source: Bhutan Education Blueprint Cost Simulation Model)

As expected, ECCD will need to be expanded significantly over the reform years to meet the increased coverage. The number of students will increase almost four-folds between 2014 and 2024. Number of teachers in public ECCD centers will need to increase by about three-folds while number of public ECCD centers will also need to increase significantly to provide space for additional children.

For primary to secondary education, changes in terms of number of students, teachers required, and classrooms needed are rather small compared to those of ECCD. However, the focus of intervention in those sub-sectors will be on quality enhancement. This is reflected in increased unit costs presented in Table 5.4.

Number of teachers and classrooms required to accommodate students also change accordingly and it will be necessary for Bhutan to plan for those changes in the future. While changes in number of classrooms may be small, the number of hostel beds will increase significantly over time because of the introduction of the central school system. It will not only have cost implication for building more hostels, but also for hiring additional personnel as caregivers, cooks, and counsellors.

Cost projections for the Bhutan Education Blueprint 2014-2024

As mentioned in the earlier the financial project is based on the unit cost of each level of education. Since many initiatives aimed at enhancing the quality of education will be implemented through the Blueprint, it is necessary to increase the unit cost. In the projection, it is estimated that unit cost shall increase annually by 5.3 percent, as per the GDP annual growth rate (Table 5.4).

Table 5.4 Estimated unit cost in Nu 2014-2024 (2014 price)

	2014	2016	2018	2020	2022	2024
ECCD	10,000	11,088	12,295	13,632	15,116	16,760
Primary	15,000	16,632	18,442	20,449	22,673	25,141
Lower & Middle Secondary	50,000	55,440	61,473	68,162	75,578	83,802
Higher Secondary	90,000	99,793	110,651	122,691	136,041	150,843
TVET	233,350	258,740	286,894	318,110	352,724	391,103
Tertiary Education (in Bhutan)	100,000	110,881	122,946	136,323	151,157	167,604
Tertiary Education (abroad)	210,000	232,850	258,186	286,279	317,429	351,968
Special Education	100,000	110,881	122,946	136,323	151,157	167,604
Non-Formal Education	15,000	16,632	18,442	20,449	22,673	25,141
Continuing Education	15,000	16,632	18,442	20,449	22,673	25,141
Additional cost for boarding students [1]	30%	30%	30%	30%	30%	30%

(Source: Bhutan Education Blueprint Cost Simulation Model, calculated based on the UIS Data)

Based on the simulation results, the projected financial resources required are as shown in Table 5.5. In order to realize the visions and aspiration of the Blueprint, Bhutan will need to increase its financial commitment to education significantly. From 2014 to 2024, the education budget needs to grow on the average of 8 percent annually. The biggest increase will be in lower and middle secondary schools. Expected increases in resources required for higher secondary education is small compared to other sub-sectors because increasing number of students will be at TVET institutes. In order for calculating the full-cost of education, it is important to include TVET costing in the future.

As per UNESCO Institute for Statistics (UIS) data the education expenditure of Bhutan is 4.7 percent of GDP in 2011 and it was 7.1 percent GDP in 2005. At the same time, the education sector has received 11.3 percent of total government expenditure in 2011 and it was 19.8 percent in 2004. The education expenditure as a percentage of GDP is lower in Bhutan than in many countries in the region eg. Maldives, Mongolia, Fiji. The Blueprint has envisioned many new initiatives to transform the education system, hence, it requires more financial resources than previous years to transform the education sector in a meaningful way. These innovative aspects will be implemented in a phases as indicated in Chapter 4. In this context, it is proposed to expense minimum 6 percent of GDP or 15 percent of total government expenditure on education sector, as projected in the simulation.

Table 5.5 Projected cost in million Nu 2014-2024

	2014	2016	2018	2020	2022	2024
Projected Cost						
ECCD	35	57	84	132	187	250
Primary	1,329	1,686	1,985	2,355	2,594	2,789
Lower & Middle Secondary	2,298	2,359	2,728	3,177	3,741	4,422
Higher Secondary (excluding TVET)	813	646	601	508	547	563
Tertiary Education	1517	1,925	2,260	2,818	3,450	4,221
Non-Formal Education	120	161	216	290	389	522
Continuing Education	31	42	56	75	101	135
Cross-cutting Expenditures	184	206	238	281	330	387
Total Cost (excluding TVET)	6,327	7,081	8,168	9,635	11,339	13,288
of which: teacher professional development (PD)	-	229	261	299	335	373
Of which: recurrent (%)	74%	74%	73%	73%	73%	73%
Of which: capital (%)	26%	26%	26%	26%	26%	27%
% change	0%	8%	7%	8%	8%	8%
GDP in 2014 price	113,019	125,316	138,952	154,071	170,836	189,424
Annual GDP growth rate	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
Share of education expenditures as % of GDP	5.6%	5.7%	5.9%	6.3%	6.6%	7.0%

(Source: Bhutan Education Blueprint Cost Simulation Models)



APPENDICES

Appendix I: Growth of Education and Current Situation

1. Introduction

Bhutan, a mountainous country nestled in the Himalayas, is where prosperity is measured in terms of happiness levels of its people and not just by Gross Domestic Product (GDP) alone. In 2008, the Planning Commission was renamed as the Gross National Happiness Commission (GNHC) to guide the national economic development process aligned with Gross National Happiness principles. Since the launch of the First Five Year Plan in 1961, its socio-economic development continued its positive trend with an average annual economic growth of 8.5 percent. The enrolment in schools and tertiary education institutes have increased, health indicators have improved, revenue from hydropower and tourism have increased substantially, telecommunication has expanded, and transport infrastructure have expanded to reach the rural population.

Bhutan has an area of 38,394 square kilometres and is administratively divided into 20 Dzongkhags that are further subdivided into 15 *Dungkhags* and 205 *Gewogs*, to facilitate the direct participation of the people in the development and management of their own social, economic and environmental well-being. Bhutan, with its 70.5 percent of the land surface under forest cover providing home to many endangered species of flora and fauna, is considered one of the ten global hotspots for biodiversity. The Constitution of the Kingdom of Bhutan also requires the country to maintain 60 percent forest coverage for all times. Based on the growth rate of 1.3 percent³⁶, the estimated population for 2014 is 745,153 with 51.0 percent and 49.0 percent respectively for males and females.

The process of decentralization began as early as 1980. In 2008, Bhutan adopted its Constitution which paved a smooth transition from absolute monarchy to democratic constitutional monarchy.

Bhutan's GDP growth rate over five year period (2009-

2013) has averaged at 6.63 percent.³¹ Over the same period hydro-power, agriculture, tourism, mining and quarry have been some of the highest contributors to the GDP. Agriculture provides employment to 65 percent of the population and contributes about 16.2 percent to the country's GDP. Bhutan's life expectancy at birth has risen from 66.7 years in 2010 to 68.98 years in 2014. Similarly, Bhutan's Primary Net Enrolment Rate (PNER) stand at 95.0 percent and general literacy rate at 63.0 percent during the same year.

2. Education System

Ever since the visit of Guru Padma Sambhava in 746 AD to Bhutan, Buddhist monastic education played an important role in the lives of the people. Monastic education continued to be the predominant form of education until early 1960s and continues to provide an alternative form of education.

The first modern school was established in 1914 in Haa by His Majesty the first King Gongsa Ugyen Wangchuck. With the launch of the first Five Year Plan in 1961, modern education was further expanded to support the socio-economic development of the country. The third King Jigme Dorji Wangchuck, known as "the Father of Modern Bhutan", established English medium schools across the country. With just about 11 schools and 400 students in 1961 the number of schools, students, and teachers have exponentially increased to 551 schools with 172,393 students and 8,560 teachers in 2014.

The country has achieved 95 percent and 85 percent net enrolment ratio for the primary and secondary school education respectively. The net enrolment ratio for the higher secondary education (XI & XII) currently stand at 27 percent and the gross enrolment ratio at tertiary level is estimated at 24 percent. The Gender Parity Index (GPI) of GER at the primary

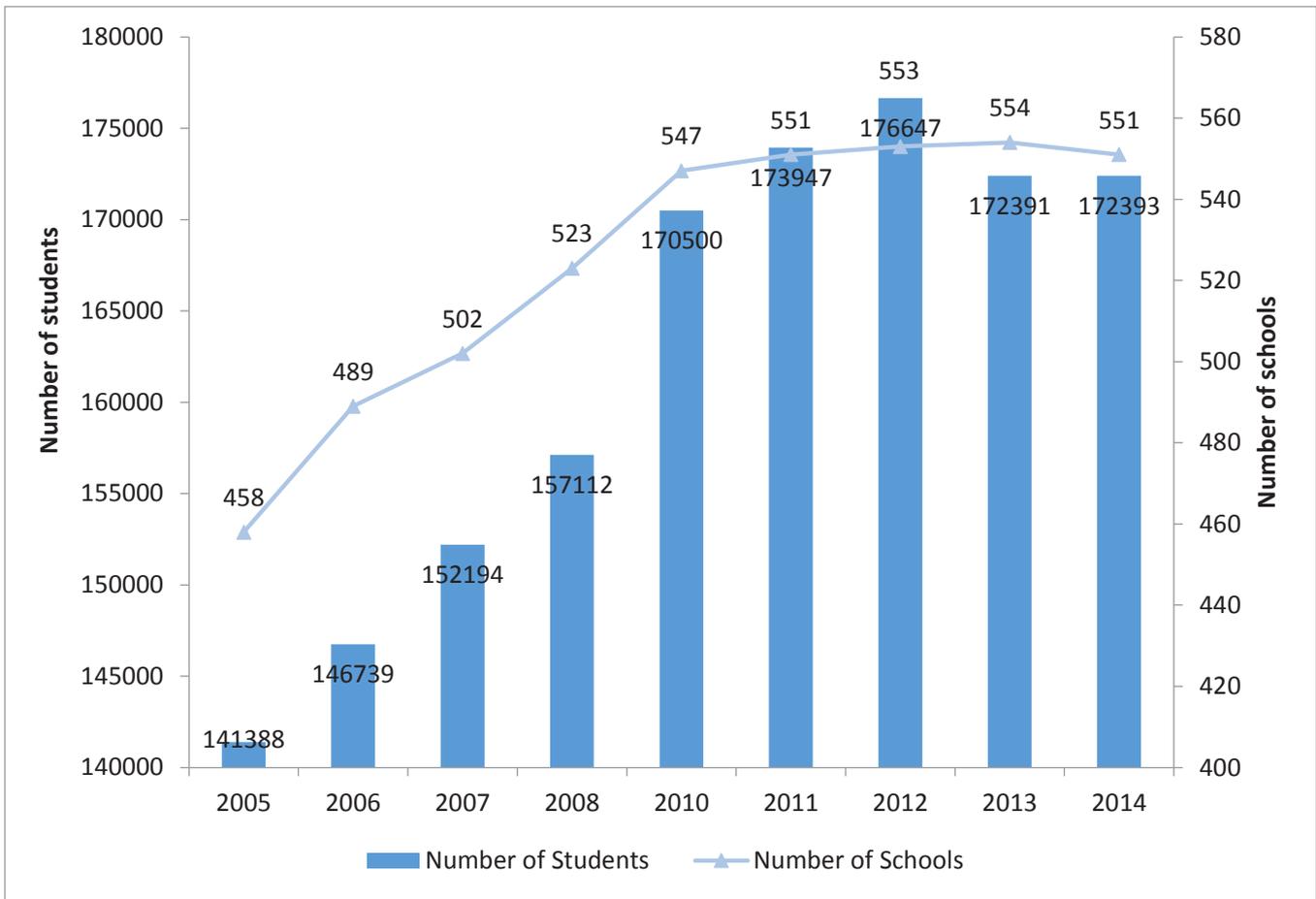


Figure 1: Trend on number of schools and students over the years
(Source: Annual Education Statistics, 2014)

level stands at 0.98, 1.04 for secondary, 1.16 for higher secondary, and 0.78 for tertiary education.

As a sector mandated for educating the nation and contributing to nation’s transformation from a traditional society to a modern State, the education system today comprises of Monastic Education, Formal Education and Non-formal and Continuing Education as briefly described below.

2.1 Monastic Education

Buddhism came to Bhutan in the 8th century and has played a vital role in shaping the social, political, economic and cultural evolution of the country. Until the beginning of modern education in the 1960s, by and large the education available in Bhutan was limited to monastic schools. Over the centuries, various

lamas and local nobility have established their own separate domains in the country. Zhabdrung Ngawang Namgyal (1594–1652) in the 17th century, introduced a dual system of governance, in which the temporal and religious authorities were separated and vested in the *Druk Desi* and the *Je Khenpo*, respectively. His Holiness, the *Je Khenpo*, is the Spiritual Head of the country and administers *Dratshangs* or the monastic institutions.

There are two types of monastic schools—those that are government-supported and come under the Central Monastic Body, and the private monastic schools that are established and managed by other religious leaders. The monastic education is offered through *Shedras* (Monastic Colleges), *Dratshangs* (Monastic schools), and the *Gomdeys* (Meditation Centres). Monastic education offers courses on language, arts,

literature, philosophy, and meditation among others and provide qualification equivalent to Bachelors and Masters degrees. As of 2011, there were a total of 7,240 monastic novices in 388 monastic centres and 3 nunneries in Bhutan managed by the Central Monastic Body.⁴²

2.2 Formal Education

The formal education system covers all institution-based education from pre-primary to tertiary education. Bhutan currently has seven years primary education cycle (PP-VI), including one year of pre-primary, followed by six years of secondary education comprising two years of lower secondary (VII-VIII), two years of middle secondary (IX-X), and two years of higher secondary (XI-XII). This is delivered through extended classrooms (PP-III), primary schools (PP-VI), lower secondary schools (PP-VIII), middle secondary schools (PP/VII-X), and higher secondary schools (PP/VII/IX/XI-XII). Bhutan provides free basic education from class pre-primary (PP) at the age of six till grade X. Beyond grade X the provision of higher secondary education is based on merit. With the first private school established in 1987, there are currently 32 private schools in the country.

After grade X, students either continue their education in grades XI and XII in higher secondary schools, or join technical/vocational training institutes, or enter labour market. The entrance to grade XI in Government schools (minimum of 40 percent of the cohort) is based on academic merit and others who do not qualify join private higher secondary schools. After grade XII, limited number of students are offered merit based ex-country scholarships to pursue higher studies in various professional fields such as medicine, engineering, agriculture, forestry, education, etc. The Government also offers in-country scholarships depending on the intake capacity of the constituent colleges under the Royal University of Bhutan (RUB). In 2013, the intake of students into RUB colleges was 3,337⁵⁹ as against a total of 7,782⁶ grade XII graduates which accounts to 42.88 percent of the total graduates. Students who do not qualify

for government scholarships in RUB colleges, study privately in colleges within and outside Bhutan on self-financing basis. In 2014, need-based student loan was initiated to support needy students to pursue tertiary education.

With establishment of the RUB in 2003, all ten tertiary education institutions which were earlier under different Ministries were consolidated under the RUB. Today, it has eight constituent colleges and one affiliated private college, Royal Thimphu College. A decade after the establishment of the RUB, the second university, University of Medical Sciences of Bhutan (UMSB) was established in 2013 and it took over two institutions, the National Institute of Traditional Medicine (NITM) and the Royal Institute of Health Sciences (RIHS) from the RUB as constituent colleges of UMSB. It has also taken over the Postgraduate Medical Education Centre (PGMEC) as its constituent member.

In addition, there are currently two autonomous institutions - the Royal Institute of Management (RIM) and Royal Institute for Tourism and Hospitality (RITH) offering tertiary level courses in Management and Tourism and Hospitality.

As of 2014, 11,089 students are pursuing various courses at the tertiary level within Bhutan.⁴² Further, 2,779 students out of 8,357⁷ students graduating from grade XII are pursuing tertiary studies outside Bhutan mostly in India⁴² at their own expenses. This accounts to 33.25 percent of the total grade XII graduates.

3. Curriculum and Assessment

Curriculum is the soul of any education system. The curriculum and teaching-learning processes will need to remain dynamic⁴⁹ enough to enable learners to adapt to the changing range of knowledge and skills required for the evolving economic opportunities and changing job profiles.

3.1 The School Curriculum:

Bhutan's school curriculum is structured in five Key Stages, namely classes PP-III (Key Stage 1), classes IV-VI (Key Stage 2), classes VII-VIII (Key Stage 3), classes IX-X (Key Stage 4), and classes XI-XII (Key Stage 5). Compulsory and elective subjects available at each of the Key Stages are as given in Table 2 below.

The nationalization of the school curriculum began since early 1970s. This was followed by development of teaching-learning materials including textbooks and teachers' guides for up to grade X except for World History, World Geography, and Computer Application for classes IX-X. For classes XI-XII, Dzongkha and English text books are developed in the country. Text books for Mathematics are customized in accordance with the national syllabus and are imported.

Table 1: Breakdown of compulsory and elective subjects during each level of education

Compulsory and Elective subjects

■ SCIENCE
 ■ RIGZHUNG
 ■ COMMERCE

	Key Stage 1 (PP-III)	Key Stage 2 (IV-VI)	Key Stage 3 (VII-VIII)	Key Stage 4 (IX-X)	Key Stage 5 (XI-XII)
COMPULSORY	<ul style="list-style-type: none"> ▪ Dzongkha ▪ English ▪ Mathematics ▪ Environmental Studies (EVS) ▪ Health and Physical Education (HPE) ▪ Arts Education 	<ul style="list-style-type: none"> ▪ Dzongkha ▪ English ▪ Mathematics ▪ Science ▪ Social Studies ▪ HPE 	<ul style="list-style-type: none"> ▪ Dzongkha ▪ English ▪ Mathematics ▪ Science ▪ History ▪ Geography ▪ HPE 	<ul style="list-style-type: none"> ▪ Dzongkha ▪ English ▪ Mathematics ▪ Physics ▪ Chemistry ▪ Biology ▪ History ▪ Geography ▪ <i>Khordey Lam Sum</i> ▪ <i>Ngagdroen</i> 	<ul style="list-style-type: none"> ▪ Dzongkha ▪ English ▪ ■ Physics ▪ ■ Chemistry ▪ ■ Commerce ▪ ■ Accountancy ▪ ■ <i>Chenju</i> ▪ ■ <i>Sumtag</i> ▪ ■ <i>Key-jur</i> ▪ ■ <i>Nyengag</i>
ELECTIVE				<ul style="list-style-type: none"> ▪ Economics ▪ Computer Application ▪ Agriculture and Food Security ▪ Vocational Skills Development Curriculum ▪ ■ <i>Nyer-Khoi-Nam Shed</i> ▪ ■ <i>Ka-Ned Selwai Melong</i> 	<ul style="list-style-type: none"> ▪ Geography ▪ History ▪ Mathematics ▪ Biology ▪ <i>Rigzhung</i> ▪ Computer Studies ▪ Business Mathematics ▪ Economics ▪ Literature in English ▪ Second Language (for Non-Bhutanese) ▪ ■ <i>Gyalrab</i> ▪ ■ <i>Tsi</i> ▪ ■ <i>Nencha</i> ▪ ■ <i>Driglam Namzha</i>

(Source: Rules and regulation booklet, BCSEA, 2014)

* Language and Culture Studies Education

The school curriculum is developed and implemented by the Department of Curriculum Research and Development (DCRD). The first major curricular reform was carried out in 2004 starting with English, Dzongkha, and Mathematics subjects. Science curriculum reform was initiated in 2007. Social science subjects have not been revised or reformed on a major level since their introduction in 1990s. Textbooks up to class VIII are developed in the country, and are revised annually. Textbooks from class IX onwards are imported except for Bhutan History and Bhutan Geography.

In 2010 through the Educating for GNH programme, efforts have been made to integrate Bhutanese values to accelerate the cultivation of intellectual, emotional, social and personal dimensions of the learners.

3.2 School Based and National Assessment System

The Bhutanese school curriculum as any other curriculum considers assessment as an integral part of the teaching-learning process. The mode of assessment requires the assessment of student learning outcomes for each subject at each level of every key stage of schooling. The assessment from classes PP to X comprises Continuous Formative Assessment (CFA), Continuous Summative Assessment (CSA) and term-end summative assessment. Table 1.2 shows the breakdown of marks in CA and term end summative assessment.

The summative assessment, in the form of written examinations, is conducted at the end of term one and end of the academic year. Written examinations for all levels in the mid-term and annual examinations are developed, conducted and evaluated by schools

Table 2: Formative and summative assessment weighting at various key stages of learning

Key Stage	Class	Continuous Assessment	Written Exam	Total
1	PP	50	50	100
	I-III	40	60	100
2	IV-VI	40	60	100
3	VII-VIII	30	70	100
4	IX-X	20	80	100
5*	XI-XII	30	70	100

*At Key Stage 5, 30% comes from practical and project works in some subjects such as Science, Geography and Computer Studies.

themselves. The results are used primarily to promote the students to the next higher class or retain them in the same class.

The other types of examinations are those prepared, conducted and evaluated by BCSEA, which include the Bhutan Certificate of Secondary Education (BCSE) for class X and Bhutan Higher Secondary Education Certificate (BHSEC) for class XII, and Competency-Based Testing for classes III and VI. Besides these examinations, BCSEA conducts National Education Assessment (NEA) to monitor and propose recommendations towards improving the student learning outcomes. BCSEA is gradually moving towards competency based assessment to enable testing of higher ordered thinking skills. The class III annual examination is competency based.

In 2011, Bhutan Board of Examinations (BBE) was restructured and established as Bhutan Council for School Examinations and Assessment (BCSEA) as an autonomous agency. BBE was established in 1986 to manage the school assessment system.

4. Early Childhood Care and Development

The Early Childhood Care & Development (ECCD) supports children's development and transition to primary education. The ECCD was first conceived in 2002.

A separate division was opened at the MoE in 2010 to support ECCD services to the children aged 0-8 years through:

- home based parenting education catering to children aged 0-2 years to promote sound parenting and childcare practices and to strengthen provisions of health, hygiene and nutrition.
- centre based Early learning opportunities catering to children aged 3-5 years with establishment of private Day care centres, work-place based centres, and Community based centres supported by corporate bodies, NGOs, UNICEF, and Save the Children providing early stimulation and education;
- intervention in schools to improve teaching-

learning practices to enhance the child readiness for formal schooling.

The Ministry of Education facilitates and regulates the establishment of the centres by different agencies and provides professional development support to the facilitators working in these centres. The ECCD centres in the urban areas are mostly operated by private individuals. However, in the rural areas establishment of ECCD centres are supported and operated by the government, NGOs and development partners. In 2013, draft Early Learning and Development Standards (ELDS) was reviewed and published to ensure quality services rendered by ECCD centres. Simultaneously the Ministry also reviewed the draft ECCD guidelines and came up with one uniform guidelines for all types of ECCD centres.

The curricular domains addressed in the centres for children aged 3 - 5 years are:

- Physical wellbeing, health and motor development;
- Language and literacy;
- Approaches towards learning;
- Cognition and General knowledge and
- Spiritual, moral and cultural development.

Table 3: The table below gives a glimpse of the increase in ECCD from 2012 to 2014

Types of ECCD	2012	2013	2014
Private Centres	29	83	159
Government Centres	67	82	51
Total	96	165	210

(Source: Annual Education Statistics, 2012, 2013, 2014)

The ECCD curriculum is developed and implemented by ECCD and Special Education Needs (SEN) Division under the DSE. ECCD programmes are mostly provided by private establishments in the urban centres. In the rural communities ECCD centres are established with support from development partners

like UNICEF and Save the Children and NGOs. Only about 7 percent of the pre-school students avail ECCD facilities at present.

5. Special Education

The Special Education service was started to empower the children with special needs. According to the Population and Housing Census of Bhutan - 2005,³⁶ 3.4 percent of the total population constitutes people with one or more disabilities.

The first special school named, Muenselling Institute for visually impaired children, was established in Khaling in 1973 under the patronage of HRH Prince Namgyel Wangchuck. The school was funded by the Women's Mission of Sweden, KMA (Kwinnliga Missions Arbetare) and Christian Blind Mission (CBM), a worldwide German mission.²⁶ The school provides children with instruction in reading and writing Braille, to help them join regular schools for further education. In 2002 Special Education Needs Unit was started in Changangkha LSS to bring in physically and mentally challenged children to the mainstream school. In 2003, a school for the Hearing Impaired was opened at Drugyel Lower Secondary School.

Currently there are two special schools for children with visual and hearing impairment respectively and eight inclusive schools for children with special education needs. There are 366 students with special needs enrolled in the eight inclusive schools.

The Disabled Peoples Organization (DPO) was established in 2010 as the Civil Society Organization to provide services currently not met by the government. Today, there are three DPOs viz. Draktsho Vocational Training Centre (Draktsho), Ability Bhutan Society (ABS) and Disabled Persons Association of Bhutan (DPAB), based in Thimphu. They provide opportunities for children and youth with special needs to lead normal lives.

6. Non-Formal and Continuing Education Programme

Learning begins at birth and continues across a person's life. Rapid technological change and growth in information requires lifelong learning to enable people to take advantage of new opportunities arising due to changing needs in the society.

Non-Formal Education was initiated by the Dzongkha Development Commission (DDC) and the National Women's Association of Bhutan (NWAB) in 1992. It was started to provide learning opportunities for those Bhutanese who missed formal schooling and for those who dropped out early on from schools. The Ministry of Education assumed the responsibility of Non-Formal Education since 1994.

Although, the ratio of male and female learners is significantly wide (m: f = 1:5), over 170,000⁵⁷ learners have benefitted from the programme. The success and widespread popularity of the programme has gained international recognition and was awarded the UNESCO Confucius Prize for Literacy in 2012.

The Continuing Education (CE) programme was started in 2006 to create an avenue for continuous and lifelong learning for people who did not complete their formal studies. Currently the government and private higher secondary schools offer CE to adult learners who are mostly government employees or from private organizations. The opportunity is extended to adult learners from the ninth grade till the university education. The learners follow the same curriculum of the formal system. As of 2014, there are a total of 2095 learners comprising of 962 males and 1133 females, which is a huge increase from 78 learners in 2006.

6. Technical and Vocational Education Programme

Bhutan values its youth as the major human capital and seeks to invest in them through a rigorous effort as envisioned by their Majesties, the kings of Bhutan. Youth constitutes a substantial percentage of the

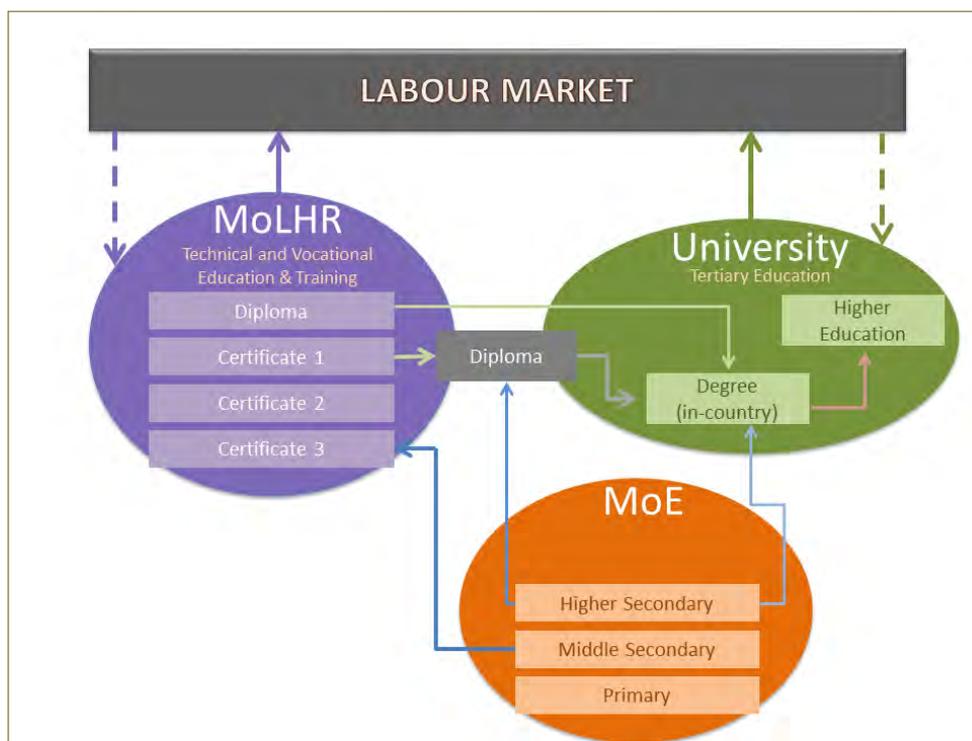
labour force. The unemployment rate among females (15-19 years) and males (20-24 years) are 9.4 percent and 7.9 percent respectively, pushing the overall youth unemployment rate to 7.3 percent— more than three times the average unemployment rate for the country as a whole.⁵⁶

In Bhutan, TVET is geared to prepare young people not only with vocational skills but also with a broad range of knowledge, skills and attitude essential for a meaningful participation in work and life. Currently, there are eight Technical Training Institutes under the Ministry of Labour and Human Resources (MOLHR) offering range of certificate level courses in varied fields including traditional arts and crafts, engineering, plumbing, construction, etc., catering to grade X graduates. Today the enrolment in the TTIs stand at 1,405 students with 140 instructors.⁴² In addition, there are several private institutions offering courses such as computer programming, hospitality, tourism and so on.

Vocational Skills Development Curriculum (VSDC) was introduced as a joint venture project between the Ministry of Education and the MoLHR as an optional subject in grades IX and X. It was launched in five pilot schools located near the TTIs so that the classes for the VSDC could be conducted in the Technical Training Institutes. This is aimed to close the gap between the skills the employers demand and those employees have acquired. The Bhutan Vocational Qualifications Framework is developed to link vocational qualifications with university qualifications to facilitate lifelong learning.

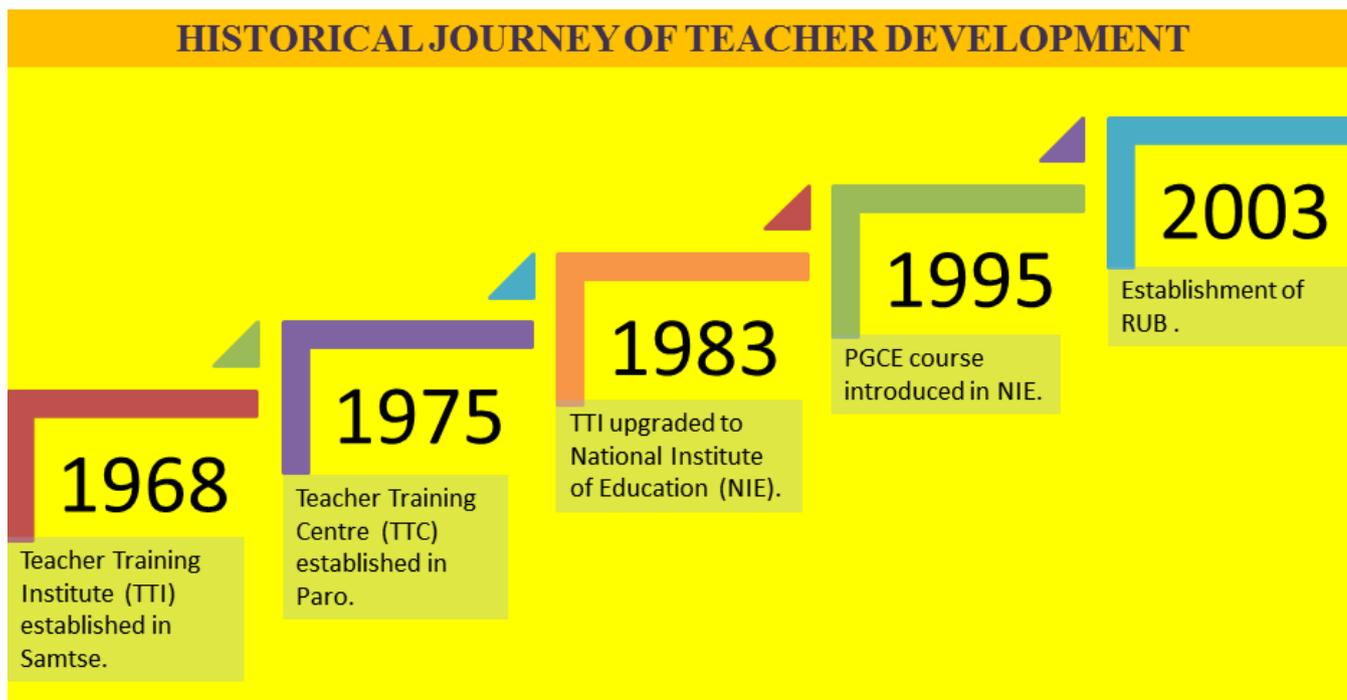
The TVET programme falls under the jurisdiction of MoLHR which are being offered in the Technical Training Institutes. Entry requirement is after successful completion of grade X. Technical education, starting from undergraduate diploma under the RUB, is offered at Jigme Namgyel Polytechnic, College of Science and Technology (CST), and College of Natural Resources (CNR). Its entry requirement is successful completion of grade XII.

Figure 2: TVET stakeholders and the linkages between and labour market



(Source: Bhutan Vocational Qualification Framework, MoLHR, 2013)

7. Teacher Development



7.1 Pre-Service Teacher Selection/ Recruitment

There are two Colleges of Education (CoE) that provide teacher education: Paro College of Education and Samtse College of Education. The four year B.Ed programme caters to primary, secondary and Dzongkha teaching and is provided at both the CoEs, whereas the one year PGDE programme caters for secondary teaching and is provided at Samtse College of Education. Entry to B.Ed programme requires a class XII or equivalent certificate wherein the students are selected based on merit ranking. These students after graduating with B.Ed. degree are inducted to the civil service through a selection by Royal Civil Service Commission. If selected, they are then deployed to different schools by the Ministry of Education. Entry to PGDE requires a degree certificate and must get through Bhutan Civil Service Examination (BCSE).

7.2 In-Service Teacher Programmes

The two CoEs offer in-service programmes to teachers through part-time mode in B.Ed in primary curriculum studies and Dzongkha and Diploma and Masters courses in leadership and management. Post Graduate Diploma in English is provided to secondary school teachers through a part-time mode at Sherubtse College in Kanglung. In-service teachers also receive PD programmes in different categories at the national level through National Based In-service Programme (NBIP) organized by various agencies. Beside this, Dzongkhag Based In-service Programme (DBIP), Cluster Based In-service Programme (CBIP) and School Based In-service Programme (SBIP) are other different modes through which teachers receive PD programmes.

7.3 Teacher Demography

The population of the teachers has increased over the years as represented by the figure below. There are 8560 teachers that consist of 5110 males and 3460 females. Teachers constitute 34 percent of the total civil servants in the country.

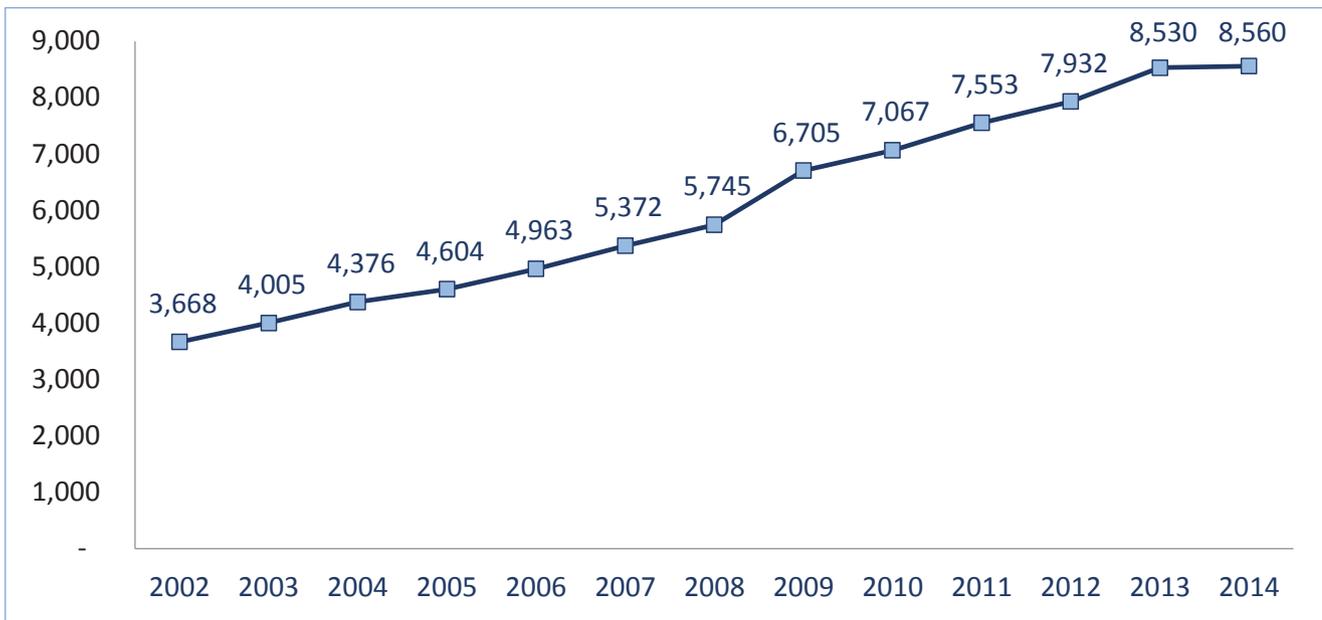


Figure : The trend in the population of teachers
(Source: Annual Education Statistics, MOE, 2014)

Over the years, there has been a phenomenal increase in the number of teachers holding Bachelor's degree and also a rise in number of teachers with Master degree.

Table 4: Number of Teachers by qualification in public schools, 2013

Qualification	Teachers in Govt. Schools			Percentage
	Female	Male	Total	
PhD	2	3	5	0.10%
Masters	204	451	655	8.40%
PG Diploma	348	377	725	9.30%
Bachelors	1540	2526	4066	52.00%
ZTC/PTCs	861	1112	1973	25.20%
Higher Secondary/ Matriculation	170	231	401	5.10%
Total	3125	4700	7825	100.00%

(Source: HRMS, MoE)

8. Education Financing

Education has always been accorded the highest priority by the Royal Government of Bhutan and has been the recipient of highest national budget. The Table 5 below shows the budgetary support to the education sector in comparison with the overall outlay.

The decline in the budget allocation for education sector from 10th plan is attributed to the segregation of budget for the RUB, which was earlier budgeted with the Ministry of Education. Besides, the past FYP plans focused on school infrastructure expansion programme that was resource intensive, and withdrawing of the priority of the development partners after the substantial increment in GDP per capita of Bhutan.

Eleventh Five Year plan (2013-2018)

During the 11th FYP, the major portion of the budget is allocated to higher education services (33.6 percent).¹⁶ The high allocation is to meet the expenses to implement scholarship programmes abroad for grade XII graduates selected on merit basis (see figure 4) Every year around 150-200 students are sent to India and abroad to undergo various undergraduate courses in critical areas such as medicine, engineering, architecture, urban-planning, law, health sciences, and biological sciences.

The second largest budget allocation is kept to improve relevance and quality of education. The professional development of teachers through both in-country and ex-country programmes has been a priority to improve the quality of education.

Table 5: Capital Outlays 7th - 11th (1992-2018) and Education Sector Budget (Nu. in million)

	7th Plan (1992-1997)	8th Plan (1997-2002)	9th Plan (1997-2007)	10th Plan (2007-2013)*	11th Plan (2013-2018)*
Total Government Budget	15,590.70	34,981.70	70,000.00	73,611.76	92,000.00
Education Budget	1,738.00	3,292.70	10,209.40	9,489.10	7438.74
% of Total Budget	11.10%	9.40%	14.50%	12.80%	8.01%

(Source: GNHC, RGOB)*only capital budget outlay

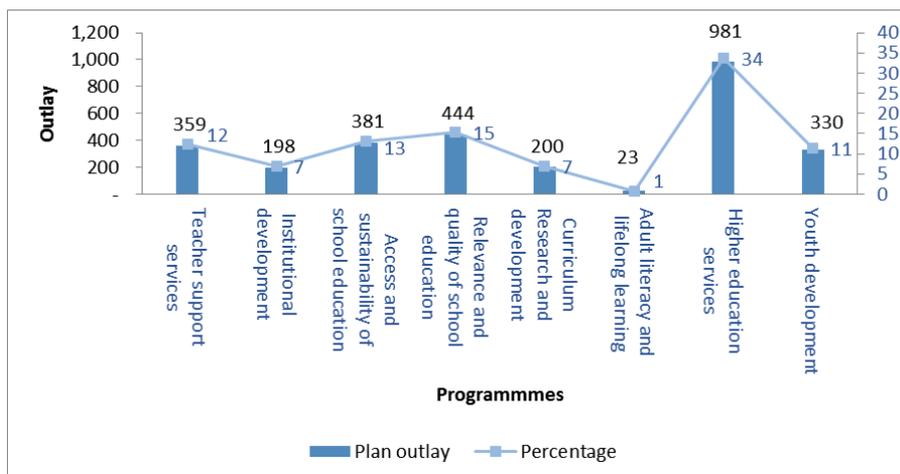


Figure 4: Budget Outlay for Different Programmes in Education in the 11th Plan (in million Ngultrum)
(Source: Annual Education Statistics, MOE, 2014)

The allocation and budget utilization of financial year 2013-14 trend indicates that from the total budget provision of Nu. 5,701.3 million allocated to education sector (including dzongkhags), 84 percent of the total budget is allocated to the Dzongkhag and Thromde education sectors of which significant proportion is spent on meeting the staff remuneration, followed by expenses on meeting scholarship cost and building school infrastructure.

Although parents shared the cost of boarding facilities at the initial phase, the parental contribution for food items in all boarding schools were stopped from 1997 in secondary schools where government provides stipend (EPGI 2003)⁴¹. The stipend, which is given on a flat rate per child, has also been raised from Nu.180.00 in 1997 to Nu. 240 per child in 2006, and Nu.1000 in July 2012. Since 1974, the increasing number of schools are supporting economically disadvantaged children with the WFP's support to attract children to school, improve retention and reduce drop out. However, the WFP support is now planned to be withdrawn with country's transition

from the least developed to a low middle income country, starting 2008. With the WFP targeted to withdraw completely from the country after 2018, the government has stepped up its effort to continue supporting the existing boarding schools and has developed an alternative plan to support economically disadvantaged children in all levels of schools. These include revising the stipend for the students in 2012, engaging Food Corporation of Bhutan in the procurement and delivery of essential food items to the boarding schools in 2014, and linking schools and local farmers for vegetable supplies.

In a move to involve participation of parents in education of their children and judicious allocation of the available resources, the provision of free stationeries to the children studying in urban schools were discontinued from 1993. The School Development Fees were made uniform and kept minimum to avoid discrepancies and discourage children from dropping out due to high fees.⁴¹

Table 6: Budget and expenditure (FY2013-2014) for MOE (Nu. in million)

Agency		Recurrent	Capital	Total
Secretariat	Budget	49	56.2	105.2
	Expenditure	48.9	53.4	102.3
Department of School Education	Budget	65.1	257.5	322.6
	Expenditure	44	225.8	269.8
Department of Youth & Sports	Budget	27.5	51.1	78.6
	Expenditure	26.9	42.4	69.3
Department of Adult & Higher Education	Budget	16.1	387.9	404
	Expenditure	15.8	365	380.8
Department of Curriculum Research & Development	Budget	16.9	28.2	45.1
	Expenditure	16.9	27.7	44.6
All Dzongkhags/Thromdes	Budget	3876	869.8	4745.8
	Expenditure	3744.1	759.3	4503.4
Total	Budget	4050.6	1650.7	5701.3
	Expenditure	3896.6	1473.6	5370.2

9. Educational Management and Administration

A key role of the education system is to rapidly adapt the curricular content and processes of the education system to the varying and fast changing skills needed in the context of globalization and to make available high quality, skilled and professional personnel capable of contributing to improved productivity and competitiveness of enterprises in the 21st century.

9.1 Role of Ministry, Dzongkhags/Thromdes, and Schools

The Ministry

It is the responsibility of the Ministry of Education to promote, plan and deliver the education and training policies of the Royal Government in collaboration with other relevant Ministries and agencies. In addition, the ministry is responsible for the development and implementation of relevant and effective Human Resources policies including teacher recruitment and deployment, as well as the institution of incentives and professional development programmes; developing and updating the National Curriculum Framework which guides the development and implementation of national curriculum in all schools; monitoring, evaluating and maintaining the standards and quality of education at all levels; and developing and implementing the Education Management and Information System (EMIS) to improve and strengthen the management of education and to support policy and decision-making, to name a few. The ministry consists of three departments and ministerial secretariat divisions and units.

The ministerial secretariat consists of Policy and Planning Division (PPD), Human Resources Division (HRD), Administration and Finance Division (AFD), Information and Communication Division (ICD), Internal Audit Unit (IAU), and Bhutan National Commission (NatCom) for UNESCO. These divisions/units under the ministry are mandated to strengthen the institutional development, both infrastructure set-up and delivery of public services from the ministry.

They are responsible for planning, coordination and monitoring of the various programmes and activities under them.

The Human Resource Division (HRD) in the ministry is the nodal agency for recruitment and deployment of all levels of HR that includes teachers, educators, staff, policy makers, facilitators and monitors.

The Department of Adult and Higher Education's (DAHE) functions are to enable participation of private promoters in providing tertiary education and facilitate institutions to endeavour in transforming Bhutan into a knowledge hub; regulate the functioning of tertiary education institutions within the country and liaise with institutions abroad as per the provisions of tertiary education policy; create a pool of highly trained graduates and professionals that shall form the basis of national human capital; empower individuals for personal and professional development by enhancing continuing and life-long learning opportunities; and ensure provision for pursuit of quality tertiary education both within and abroad with systematic mechanism in place. It has four divisions.

The Department of School Education (DSE) is responsible for the entire school system in the country - primary to higher secondary - and for all types of schools. Its primary responsibilities are: delivery of primary and secondary education focused on child friendly school; cater to Early Childhood Care and Development (ECCD) along with special educational needs (SEN); school liaison and coordination services; school agriculture, feeding, nutrition and environment education; private schools development; school planning and building; education monitoring and support; safe school initiatives; and professional development, requisition and deployment of teachers. It has six divisions.

The Department of Youth and Sports (DYS) assumes the mandate to complement the academic dimension of learning by providing youth health and development programmes to enable youth to be physically fit and mentally prepared with moral values and skills necessary to become productive and

responsible citizens. The Department supports both the implementation of programmes in schools as well as specific programmes targeted to suit the needs of out of school youth. The implementation of programmes in the schools like the School based parenting education programme, the vocational clubs, Career Guidance and Counselling, Health and Hygiene, Games and Sports and Scouting are spearheaded by the respective divisions within the Department. Outside the school system, the Department organizes thematic youth forums, supports youth initiatives, celebrates relevant youth days and festivals and provides various services like library, internet, computer classes, music and audio-visuals through its youth centres.

The Dzongkhags / Thromdes

Every dzongkhag/Thromde has an education sector which coordinates and implements the approved five year plan activities. It is the responsibility of the Dzongkhags/Thromdes to: implement and deliver the policies of the Ministry of Education at the Dzongkhags/Thromdes level, work towards the achievement of national education goals such as EFA; ensuring that there is efficient utilization of resources within the Dzongkhags/Thromdes including deployment of teachers, physical planning of schools and their upgradation and budgeting and allocation of resources; and the promotion of education and ensuring that no child is left out of the system, and that the education provided within the dzongkhag is of a quality comparable to the standards within the country.

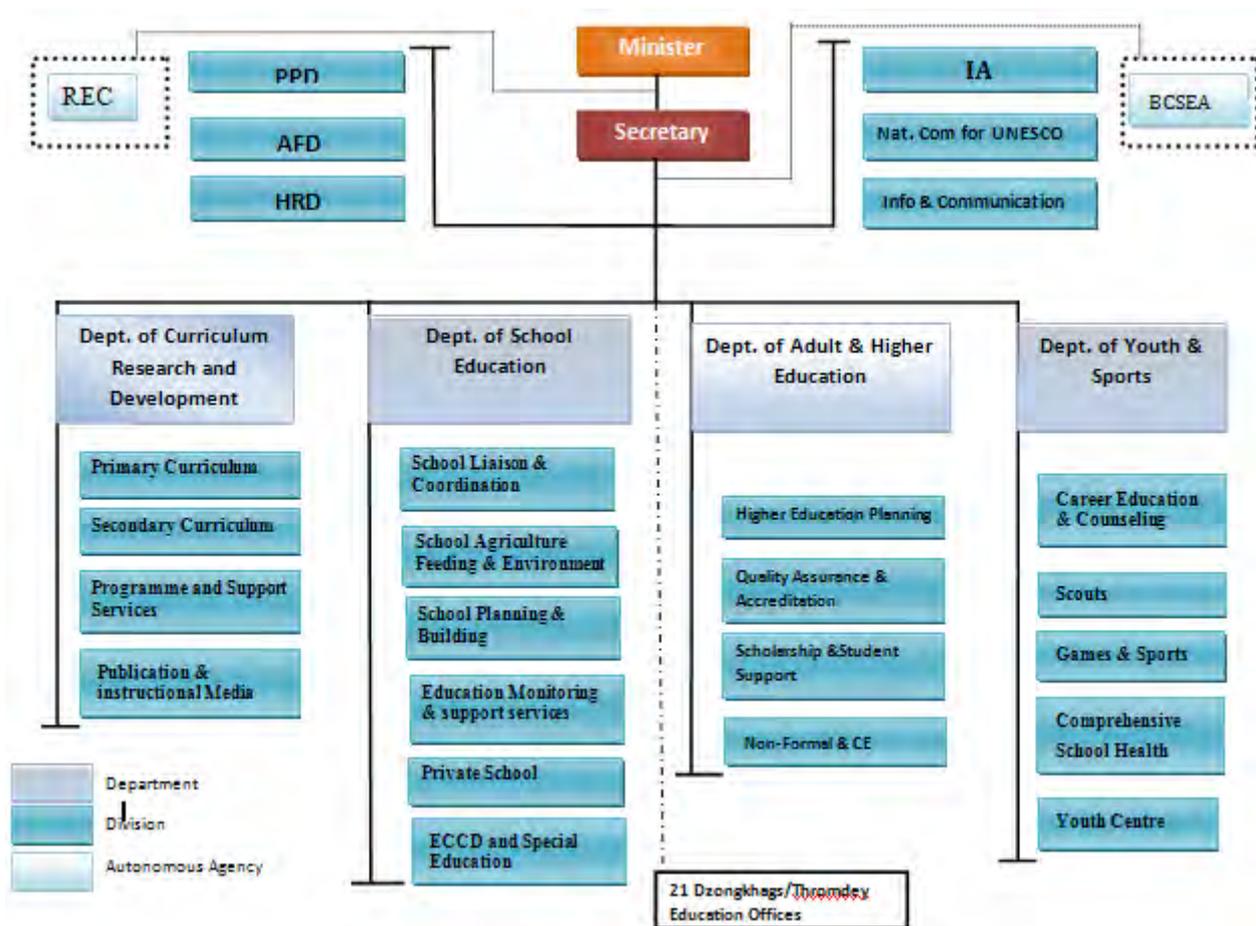


Figure 5: Present organization structure of education

The school management, including school construction and maintenance, supply of teaching and learning materials, deployment of teachers within the district and implementation of national policies, is decentralized to the Dzongkhags/Thromdes.

The Schools

The school administration remains as the sole responsibility of the principal, in most cases supported by a vice principal with more than 300 students. The management of school is supported by School Management Board (SMB) whose decisions are executed by School Management Team (SMT) consisting of the principal as the chair, vice principal, and teachers who hold key responsibilities.

All schools have uniform governance and management structure. The schools are categorized into: extended class rooms (PP-III), primary (PP-VI), lower secondary (PP-VIII), middle secondary (PP/VII-X), and higher secondary (PP/VII/IX/XI-XII). Schools are either boarding or day and located in urban settings to rural, remote and difficult places.

The principal is the overall head of the school. He/she is mandated to manage both administrative and instructional roles. He/she is supposed to collaborate and liaise with the relevant authorities in the Dzongkhag/Thromde; monitor and evaluate school achievement plans/programmes; provide academic support to encourage teachers and support staff; and evaluate the individual performance of the staff.

9.2 Other Key Stakeholders

Bhutan Council for School Examination and Assessment

The BCSEA was delinked from the Ministry of Education and was granted autonomy in 2011 with a vision to create an internationally recognized educational assessment and monitoring agency providing quality services to build the integrity and profile of the education system as a whole. The BCSEA is mandated to drive quality and standard of student learning.

Royal Education Council

The REC was established through the Royal Command in August 2007 to initiate and implement education reform across the entire spectrum covering school education, technical and tertiary education. Setting its vision as “Innovation in Education” the REC was established with a mission to be “an autonomous research organization, an intellectual community, an innovator, and a leader for the achievement of educational excellence, the goals of Gross National Happiness and a vibrant national democracy.” REC works in collaboration with the MoE, RUB and other national and international education institutions and organizations. A lot of work has been carried out since then, many of which reached out to many of our schools and the many studies carried out helped the system rethink and readjust in many occasions.

On the other hand, the Department of Curriculum and Research Development (DCRD) was established as the Curriculum and Textbook Development Division (CTDD) in mid 1980s within the Department of Education. In 1993 it was renamed as Curriculum and Professional Support Division (CAPSD), and in 2010 upgraded to a full-fledged department. The DCRD is responsible for: improving the quality and relevance of curriculum; conducting timely review of curriculum materials based on the needs; carrying out curricular and professional researches; initiating and carrying out researches in curriculum innovations; developing curriculum as per requirements; and initiating all curriculum development works like textbooks, syllabuses, frameworks, teacher guides, and support materials. It has four divisions. As a result of DCRD’s work the entire school curriculum in the country is our own making now.

However, in spite of successes, the efforts of the two institutions were largely seen as having a lot of over-laps and duplication of roles and functions. The merger of the DCRD and REC as Royal Education Council is expected to, amongst others:

- a. Reduce numerous cross-cutting and duplication of roles and functions that exist at the present;

- b. Maximize multiple benefits in terms of synergizing their professional output including curriculum development;
- c. Enhance teacher development which has been a weak area in the school system; and
- d. Strengthen research capacity of the Council as an education epicenter.

In broad terms, the REC is expected to determine the national school curriculum and teacher development programmes to continuously improve the mainstream education system in the country. In order to shoulder such important roles and in discharging its sacred responsibilities successfully, it is anticipated the new institution will have the necessary structures and resources in place.

Royal University of Bhutan

The RUB was established in 2003 through a Royal Charter with an objective to provide through the dissemination of knowledge and the advancement of learning and the granting of awards, for the economic and cultural development of the Kingdom of Bhutan, and to promote the cultural enrichment, personal development, and the wellbeing of the people. It develops and provides programmes of study at tertiary education level based on the needs of the country and promote and conduct research, to contribute to the creation of knowledge in an international context and to promote the transfer of relevant knowledge to Bhutan.

The university has eight colleges under its umbrella of management and administration and they are: College of Natural Resources (CNR), Institute of Language and Cultural Studies (ILCS), Paro College of Education (PCE), Samtse College of Education (SCE), Gaedu College of Business Studies (GCBS), Jigme Namgyel Polytechnic (JNP), College of Science and Technology (CST), and Sherubtse College. The RUB is the sole educator for all the teachers and principals requirement of the Ministry of Education including private schools. The Paro College offers Pry. B. Ed, Dzongkha B. Ed, PGDE in Dzongkha, Part-time Masters in Educational Leadership and

Management. The Secondary B. Ed and PGDE award bearing programmes are offered by Samtse College of Education.

9.3 Education Monitoring and Evaluation System

The monitoring and evaluation of educational services to the Dzongkhags and schools are carried out by the Education Monitoring and Support Services Division (EMSSD). It carries out regular monitoring to assess the performance of schools in terms of their effectiveness and accountability in the provision of quality education to the children. In 2010, the Ministry introduced Performance Management System (PMS) to assess schools holistically: school leadership; school ambience; curriculum planning & practices; holistic assessment of children; and school community vitality.



Appendix II: Methodology

The development of the Bhutan Education Blueprint 2014-2024 was an unprecedented event in the history of Bhutan's education system as it entailed a comprehensive and collaborative effort of Bhutanese people from all walks of life. The Education Blueprint was developed under the advisory guidance of a three tier governance system namely the National Steering Committee, the National Task Force and the Education Review Office.

1. Governance Structure of the Education Blueprint Project

1.1 National Steering Committee

Chaired by the Prime Minister of Bhutan, the National Steering Committee had inter organizational representations with the mandate to provide overall policy directives for the preparation of the Blueprint.

- | | |
|---------------------------------|--|
| a. Lyoenchen Tshering Tobgay | Prime Minister of Bhutan (Chair) |
| b. Lyonpo Mingbo Dukpa | Minister of Education (Co-Chair) |
| c. Lyonpo Nyeema Sangye Tshempo | Minister of Labour and Human Resources |
| d. Sangay Zam | Secretary, Ministry of Education |
| e. Nidup Dorji | Vice Chancellor, Royal University of Bhutan |
| f. Sonam Wangchuk | Secretary, Gross National Happiness Commission |
| g. Lhundup Dukpa | Officiating Director, Royal Education Council |
| h. Karma Yeshey | Director General, Department of School Education
(Member-Secretary) |

1.2 National Task Force

Chaired by the Education Minister, the National Task Force had the advisory responsibility to provide direction, rendering professional support and facilitating administrative and financial approvals during the process of the Blueprint development.

- | | |
|------------------------|---|
| a. Lyonpo Mingbo Dukpa | Minister, Ministry of Education (Chair) |
| b. Sangay Zam | Secretary, Ministry of Education (Co-Chair) |
| c. Tshewang Tandin | Director General, Department of Adult & Higher Education |
| d. Chencho Dorji | Director General, Department of Youth and Sports |
| e. Thubten Gyamtsho | Director General, Paro College of Education |
| f. Kesang Choden Dorji | Director, Department of Curriculum, Research and Development |
| g. Karma Yeshey | Director General, Department of School Education (Member-Secretary) |
| h. Kinga Dakpa | Secretary, Bhutan Council for School Examination and Assessment |
| i. Lhundup Dukpa | Officiating Director, Royal Education Council |
| j. Tandin Dorji | Chief, Dzongkha Development Commission |
| k. Phuntsho Lham | Chief, Education Monitoring and Support Services Division |
| l. Kinley Gyeltshen | Chief, Human Resource Division, Ministry of Education |
| m. Dechen Zam | Chief, Planning and Policy Division, Ministry of Education |
| n. Jamyang Choden | Chief, School Agriculture, Feeding and Environment Division |

1.3 Education Review Office

Chaired by the Director General of Department of School Education, the Education Review Office was charged with the responsibility to spearhead the Blueprint development processes by carrying out literature reviews, system reviews, identifying gaps and challenges in the system, framing survey questionnaires and tools, coordinating and facilitating nationwide consultation programme, drafting and finalizing the Blueprint. The Education Review Office comprising of eight officials was represented by the Royal Education Council, Bhutan Council for School Examinations and Assessment and the Ministry of Education who worked full time as a dedicated office for the development of the Blueprint.

- | | |
|---------------------|--|
| a. Karma Yeshey | Director General, DSE, MoE (Project Director for Education Blueprint) |
| b. Phuntsho Wangdi | Chief, School Liaison and Coordination Division, SLCD/DSE, MoE (Project Manager for Education Blueprint) |
| c. Tshering Tenzing | Executive Specialist, BCSEA (ERO) |
| d. Tashi Lhamo | Education Monitoring Officer, EMSSD/DSE, MoE (ERO) |
| e. Sangye Choden | Sr. Programme Officer, DAHE, MoE (ERO) |
| f. Geewanath Sharma | Curriculum Officer, DCRD, MoE (ERO) |
| g. Sonam Wangdi | Research Officer, Royal Education Council (ERO) |
| h. Dochu | Sr. Planning Officer, PPD, MOE (ERO) |
| i. Leki Phuntsho | Sr. Human Resource Officer, HRD, MoE (ERO) |
| j. Tenzin Phuntsho | Administrative Assistant, YHSS (Admin. Assistant) |

Governance Structure of Education Blueprint Project



2. Phases of the Education Blueprint Development

The Education Review Office developed the Blueprint in over eight months from May 2014 to December 2014 through five phases:

a. Project initiation phase

- Preparation of Project Administration
- Establishment of Education Review Office

b. Education Sector review phase

- Developing inventory of research and studies conducted in last 10 years
- Preparing Guidelines for the Country Background Report
- Education parameter mapping: identification of education domains, parameters and indicators.
- Preparation of key result framework
- Identification of main education concerns
- Preparing survey questionnaire and tools

c. Nationwide consultations planning phase

- Developing survey questionnaires
- Pre testing of questionnaires
- Developing consultation methodologies
- Developing consultation schedules

d. The nationwide education consultation phase

- Conducting field surveys
- Conducting *Zomdues* and focused group discussions
- Data entry, compiling and cleaning
- Data analysis

e. Post consultation phase

- Drafting
- Post Consultation
- Education Blueprint finalization and launch

3. Key information sources for the Education Blueprint

The Education Review Office referred to a number of national and international sources to build the core fact base to develop the Blueprint.

a. Major policy documents: The Blueprint made reference to a number of policy documents, a few sample of which are included below:

- The Constitution of the Kingdom of Bhutan
- Bhutan 2020: A Vision for Peace, Prosperity and Happiness
- Eleventh Five Year Plan document

- Bhutan MDG Reports
- Annual Nation Reports
- Bhutan Living Standards Survey Report
- Bhutan Multiple Indicator Survey Report
- Report of the First Interim Government

b. Ministry of Education reports, journals, policy guidelines.

A few sample of these are included below:

- National Education Policy
- Teacher HR Policy (2014)
- Educating for GNH
- INSET Master Plan
- iSherig Master Plan
- Education Sector Strategy: Realizing Vision 2020 Policy and Strategy
- Education Policy Guidelines and Instructions
- ECCD and NFE Reports
- Tertiary Education Reports
- National Youth Policy
- EMSSD Reports
- REC Publications
- BCSEA Publications
- EMIS data
- Education Statistics

c. The ERO looked at the education systems of other relevant countries to benchmark and seek ideas for the Blueprint .A few sample of these are included below:

- Education systems of Finland
- Sweden Background Report
- The Education Roadmap in South Africa
- The Impact of Globalization on Education
- Shanghai and Hongkong – Two Distinct Examples of Education reform in China
- OECD – Fifty Years on Change in education
- New Zealand Country background Report
- Education for 21st century
- Malaysian Education Blueprint
- Australia background Report
- Singapore Education System

d. Personal Memorandum

- Nima Tshering, Echidna Global Scholar, Center for Universal Education, Global Economy and Development at Brookings on Bhutan's Strategy For Girls' Quality Learning Outcomes
- Dawa Penjor, Yodel Tours on Views on Education in Bhutan

4. Inter organization and agency collaborations

The Blueprint was developed with assistance from the following organizations and agencies. The support from these organizations was primarily in developing survey questionnaires, conducting nationwide surveys, data entry and analysis and drafting of the Blueprint.

- Royal University of Bhutan
- Paro College of Education
- National Statistical Bureau
- Royal Education Council
- Bhutan Council for School Examinations and Assessment
- UNESCO Office in New Delhi and Bangkok

5. Nationwide education consultation

5.1 Consultation Methodology

The development of this Blueprint was a robust, comprehensive and collaborative effort that involved Bhutanese from all spectrum of society. Through series of preparatory meetings with numerous stakeholders, the ERO used the following strategies for nationwide consultations:

- a. Public consultation (*Zomdue*)
- b. Focus group discussion
- c. Field survey through survey questionnaires
- d. On-line survey (through questionnaires posted on the Ministry's website)
- e. On-line forum discussion (and through dedicated Facebook page and twitter)
- f. One-on-One interviews
- g. On-air consultation (through radio and television programmes)
- h. Memorandum from individuals and interest groups

5.2 Public Consultation (*Zomdue*)

A total of 39 *Zomdues* comprising of a heterogeneous mix of stakeholders such as teachers, school leaders, civil servants, corporate employees, armed forces, farmers, villagers, and monks were conducted across the country where a total of 707 people participated.

5.3 Focus Group Discussion (FGD)

A total of 1366 people participated in 75 FGD comprising of a homogenous mix of stakeholders such as teachers and school leaders, civil servants, corporate employees, armed forces, farmers, villagers, non-governmental organizations, development partners and monks were conducted at different locations across the country.

5.4 Field Survey

The Field Survey was conducted by administering Survey Questionnaires targetting sample size of 9000 respondents comprising different stakeholder groups as shown in the table below. The population of each respondent group was taken from NSB Statistical Year Book 2014.

SI No	Target Group	National Total	Sample Size	Remarks
1	School Students	85553	1100	13+ Years Students and Colleges and Institutes
2	College Students	8411	900	
3	Teachers & Principals	8298	1000	-
4	Civil Servants	16558	1000	Varying levels and categories
5	Corporate employees	22578	1000	Public and private Corporations
6	Armed Forces	15330	700	RBA, RBG and RBP
7	Monastic	7240	500	Registered one only
8	Business community	104390	1000	Wholesale, retailer, hotelier, real estate, renting and others
9	LG Leaders	1454	600	Dzongkhag, Thromde, Gewog and Chiwog
10	Villagers/farmers	243244	1200	General public
	Total	-	9000	-

Three separate sets of survey questionnaires were developed for students, teachers and principals and public (comprising of civil servants, corporate employees, armed forces, registered monastic bodies, business community, local government leaders and farmers). The survey was administered through 60 Resource Centers in each Dzongkhag and Thromde.

Random sampling of the students, and teachers / principals respondents was done using data from Education Management Information System (EMIS). For other respondent groups the number of respondents for each centre was identified. Convenient sampling was used to identify the respondents for each centre.

A total of 68 enumerators were divided into 10 teams supervised by 12 Supervisors conducted the field surveys, focused group discussions and *Zomdues* at various centres.

The survey used 12 school buses for transportation of the enumerators.

5.5 One-on-One Interview

The ERO conducted one-on-one interviews with 14 eminent personalities of the nation including Ministers & Former Ministers, Secretaries, Senior Government Officials, scholars, law, policy & decision makers, political party presidents, educators and high profile individuals who had distinguished careers.

5.6 On-line Consultation

Online consultation was carried out by providing a platform through Facebook, Twitter and a webpage created for the Education Blueprint. A total of 332 people including college students participated in the online consultation.

5.6 On-air Consultation

On-air consultation platform was also provided with the support from Bhutan Broadcasting Service. Sensitization and awareness programmes and call in programmes were conducted through radio and television channels. Four radio programmes in Sharchop, Dzongkha, English and Lhotshamkha and two television programmes were conducted.

5.7 Memorandum from individuals/professionals/interest groups

To maximize participation of the public, opportunities were provided for individuals and interest groups to submit written memorandum on the status and challenges in education in general in writing or online at moeblueprint@gmail.com through which two individual memorandums were received.

The month long nationwide consultation programme was launched on 7th October 2014 by the Prime Minister of Bhutan and completed on 7th November 2014.

The Data Centre established in Khasadrapchu Middle Secondary School from 13th October to 7th November 2014 had ten officials from the NSB and Education Review Office tabulating the data using statistical software.

The drafting of the Blueprint was done through a Writer's Workshop in a month long retreat from 19th November to 18th December 2014 in Paro by the Education Review Officers and officials from REC, Bhutan Council for Student Examinations and Assessment under the advisory support of experts from the RUB, Paro College of Education and the MOE.

A total of 10197 respondents participated in the consultation programme where the field survey included 1134 students, 1095 teachers and 5438 public totaling to 7999 respondents that accounted for 88.9 percent of the total targeted respondents. In addition 332 people including college students participated through the online consultation medium.

In the development process of the Blueprint, more than 11000 people including the respondents, coordinators, moderators, supervisors, enumerators, advisory and technical experts were involved.

The launching of the Bhutan Education Blueprint 2014-2024 was an unprecedented event. His Majesty the King gave an audience to the Annual Education Conference participants on 26th December 2014 where His Majesty addressed on his concerns, dreams and aspirations for the country. His Majesty, in his address also highlighted on the importance of the competency of school leaders and teachers, urgency to inculcate values, skills training and national identity in youths. The Education Blueprint was launched by His Holiness the 70th Je Khenpo Trulku Jigme Chhoeda on the auspicious day of the 26th December 2014 in the historic Punakha Dzong. On 27th December 2014, the Hon'ble Prime Minister, Lyonchhoen Tshering Tobgay released the Education Blueprint

Snapshot of Education Blueprint Preparatory Process

Sl. No.	Consultative Meeting	Date	Issues discussed	Member attended from agency	No. of participants	Remarks
1	Intra-inter agency Consultation Workshop	25th Aug	Country Background Report, Survey questionnaire, Education parameter mapping, Education Blueprint Framework, Consultation Methodologies, Result Framework	BCSEA, REC, DAHE, DSE, DCRD, DYS, PPD, EMSSD, HRD	25	
2	1st National Task Force Meeting	29th Aug	Education parameter mapping, Country background report, Domains and parameters & way forward	NTF members	13	
3	Consultative discussion on the questionnaire	10th Sept	Survey Questionnaire	BCSEA & REC	4	
4	Consultative discussion on the questionnaire	12th Sept	Survey Questionnaire	DCRD, EMSSD & REC	3	
5	In-house consultation meeting with DEOs/TEO, Principals and Teachers	17th Sept	Main Education Concerns; Survey questionnaire	TEO (Thimphu Thromde), DEO (Paro), YHSS, PHSS, Changzamtog LSS, Ugyen Academy, RHSS, Shaba MSS, Druk School	13	

6	Informal meeting with Dr. Phup Rinchen	18th Sept	Survey Questionnaires		1	
7	Translation of the Survey Questionnaire	18th Sept	Survey Questionnaires	NFEC/EMS-SD/DCRD	3	
8	Pre Testing of the Survey Questionnaires	26th Sept	Survey Questionnaires	Kuzuchen MSS and Changzamtog LSS	72	
9	Proof Reading of the Questionnaires	27th Oct	Survey Questionnaires	PCE	2	
10	2nd National Task Force Meeting	6th Oct			13	
11	Supervisors Meeting	6th Oct	Preparation for National Consultations	DCRD/EMS-SD/MoE/REC/BCSEA	12	
12	Training of the Enumerators	7th Oct		Graduates	68	
13	1st National Steering Committee Meeting	8th Oct			9	
14	Filed survey	9th Oct to 7th Nov	National Consultations	Students, Teachers and Public	7667	Students =1134 Teachers =1095 Public = 5438
15	Online survey		National Consultations	Students, Teachers and Public	332	Students = 236 Teachers = 46 Public = 50

16	Focused Group Discussions		National Consultations	Students, teachers, public, civil servants, armed forces, business, corporate employees, NGOs, CSOs, Development Partners, MPs, NCs, etc.	1366	
17	Zomdues		National Consultations	Students, teachers, public, civil servants, armed forces, business, corporate employees, etc.	707	
18	Facebook		National Consultations		500	
19	Education Blueprint Website		National Consultations		85	
20	Consultation with Dzongdags		National Consultations		7	
21	Consultation with Dzongrab/Drungpa		National Consultations		5	
22	Consultation with DEO/TEO/Principals		National Consultations		17	
23	One-on-one interview with eminent personalities			Distinguished Dashos, Lyonpos, Secretaries, Scholars etc.	14	

24	Data Punching/ Cleaning	13th Oct to 7th Nov	Data punching	NSB/ERO	10	
25	Drafting of the Blueprint	19th Nov to 9th Dec	Drafting the Blueprint	RUB/REC/ BCSEA/MoE	18	
26	CWG	9 times			12	
27	ERO meeting	21 times			12	
28	UNESCO Of- ficials visit to Bhutan	3 times		UNESCO	3	



Appendix III: Nationwide Consultation Findings

Demographic information of teachers and principals

Table 1. By Dzongkhag

Dzongkhag	Count	Percent
Bumthang	34	3.1
Chukha	97	8.9
Dagana	45	4.1
Gasa	7	.6
Haa	22	2.0
Lhuntse	28	2.6
Mongar	37	3.4
Paro	71	6.5
Pemagatshel	39	3.6
Punakha	68	6.2
Samdrup Jongkhar	60	5.5
Samtse	63	5.8
Sarpang	71	6.5
Thimphu	153	14.0
Trashigang	85	7.8
Trashiyangtse	36	3.3
Trongsa	30	2.7
Tsirang	41	3.7
Wangdue	59	5.4
Zhemgang	49	4.5
Total	1095	100.0

Table 2. By highest professional qualification

Highest professional qualification	Count	Percent
Masters in Education	113	10.4
Post Graduate Certificate/Diploma in Education	182	16.7
Bachelors of Education (Primary)	347	31.8
Bachelors of Education (Secondary)	282	25.9
Primary Teaching Certificate (PTC)	148	13.6
Zhungkha Teaching Certificate (ZTC)	18	1.7
Total	1090	100.0

Table 3: By highest academic qualification

Highest academic qualification	Count	Percent
Class X or below	98	8.9
Class XII	429	39.2
Bachelors degree	450	41.1
Masters	109	10.0
Ph.D	2	.2
Others	7	.6
Total	1095	100.0

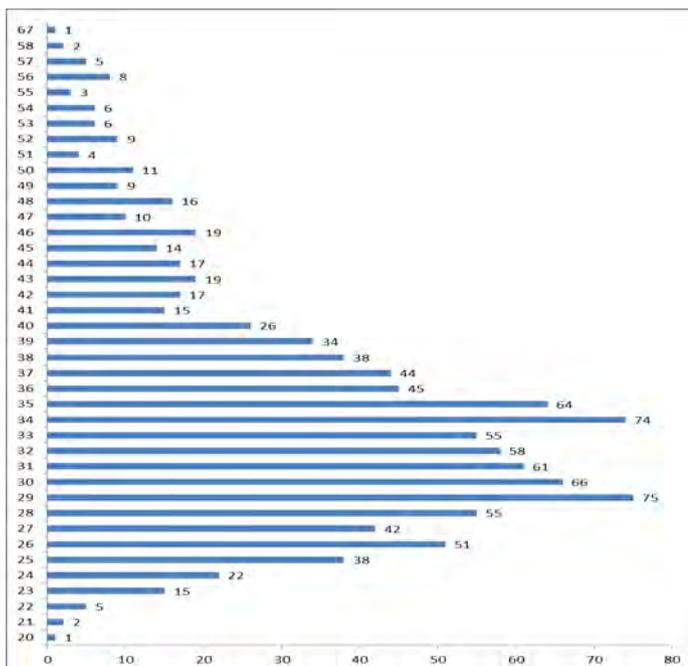


Figure 1: By age

Table 4 : By school level

School Type	Count	Percent
Primary	270	24.7
Lower/Middle secondary	630	57.5
Higher secondary	195	17.8
Total	1095	100.0

Table 5: By gender

Gender	Count	Percent
Male	636	58.3
Female	454	41.7
Total	1090	100.0

Demographic information of students

Table 6 : By Dzongkhag

Dzongkhag	Count	Percent
Bumthang	28	2.5
Chukha	101	8.9
Dagana	48	4.2
Gasa	4	.4
Haa	25	2.2
Lhuntse	22	1.9
Mongar	50	4.4
Paro	75	6.6
Pemagatshel	40	3.5
Punakha	58	5.1
Samdrup Jongkhar	78	6.9
Samtse	78	6.9
Sarpang	80	7.1
Thimphu	184	16.2
Trashigang	81	7.1
Trashiyangtse	30	2.6
Trongsa	30	2.6
Tsirang	34	3.0
Wangdue	43	3.8
Zhemgang	45	4.0
Total	1134	100.0

Table 8: By school level

School level	Count	Percent
Primary	5	.4
Lower/Middle Secondary	578	51.0
Higher Secondary	551	48.6
Total	1134	100.0

Table 10: By mother tongue

Language	Count	Percent
Dzongkha	235	20.7
Sharchophka	403	35.5
Lhotshamkha	263	23.2
Others	232	20.5
Missing	1	.1
Total	1134	100.0

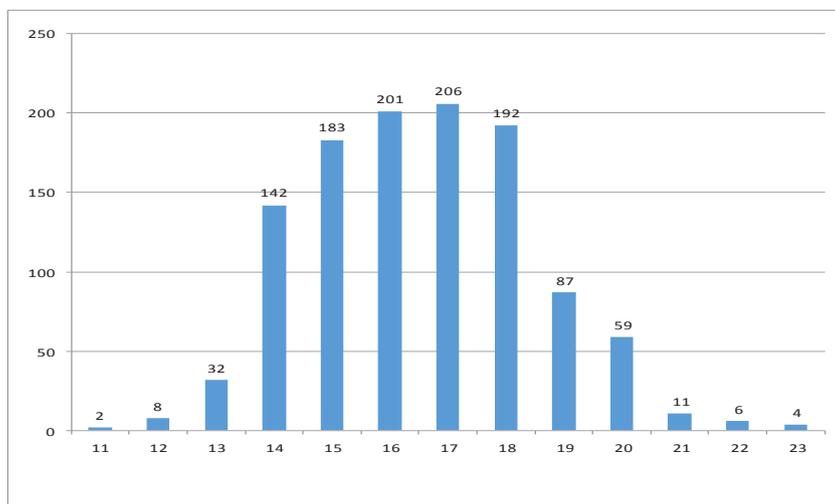


Figure 2: By age

Table 7: By grade level

Grade	Count	Percent
Class VI	1	.1
Class VII	159	14.0
Class VIII	223	19.7
Class IX	252	22.2
Class X	197	17.4
Class XI	179	15.8
Class XII	122	10.8
Total	1134	100.0

Table 9: By school type

Type	Count	Percent
Border	483	42.6
Day-scholar	651	57.4
Total	1134	100.0

Table 11: By gender

Gender	Count	Percent
Male	547	48.2
Female	587	51.8
Total	1134	100.0

Demographic information of public

Table 12: By Dzongkhag

Dzongkhag	Count	Percent
Bumthang	209	3.8
Chhukha	617	11.3
Dagana	260	4.8
Gasa	46	.8
Haa	77	1.4
Lhuentse	148	2.7
Monggar	324	6.0
Paro	284	5.2
Pema Gatshel	218	4.0
Punakha	125	2.3
Samdrup Jongkhar	341	6.3
Samtse	311	5.7
Sarpang	338	6.2
Thimphu	946	17.4
Trashigang	389	7.2
Trashi Yangtse	184	3.4
Trongsa	26	.5
Tsirang	246	4.5
Wangdue Phodrang	229	4.2
Zhemgang	120	2.2
Total	5438	100.0

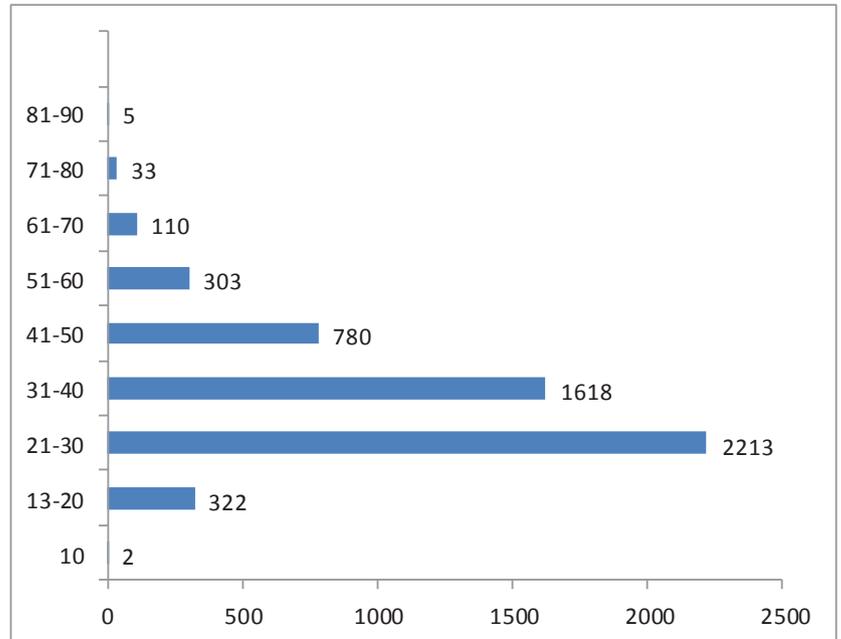


Figure 3: By age

Table 13: By gender

Gender	Count	Percent
Male	3160	58.1
Female	2262	41.6
Total	5422	100.0

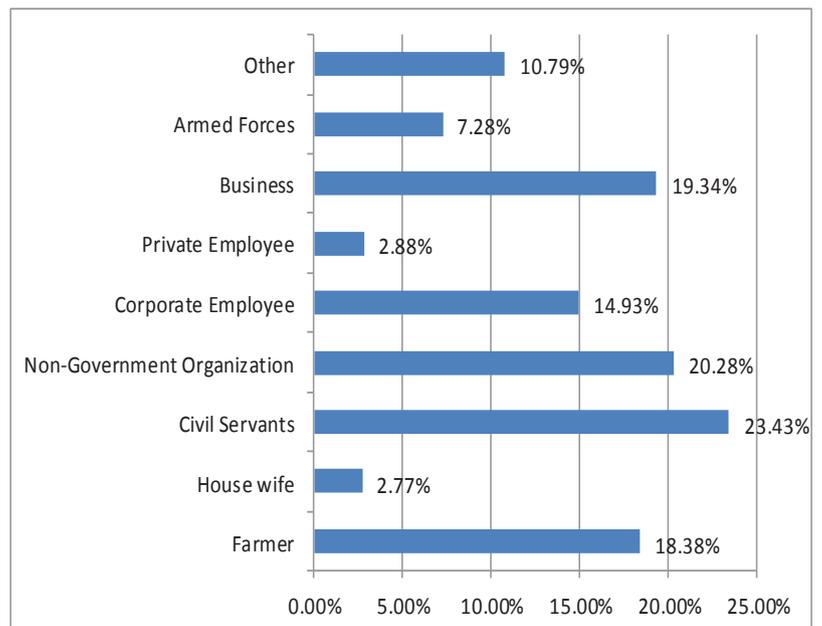


Figure 4: By occupation

Table 14: By qualification

Qualification	Count	Percent
None	1138	20.9%
Class 0-6	730	13.4%
Class 6-10	1046	19.2%
Class 10-12	1256	23.1%
Degree	903	16.6%
Masters	145	2.7%
Ph.D	6	0.1%
Others	204	3.8%
Total	5428	100.0%

Survey Findings

Table 15: Entry age for pre-primary

Age	Public		Teacher	
	Count	Percent	Count	Percent
4 years	591	10.9	60	5.5
5 years	3060	56.5	577	52.8
6 years	1761	32.5	456	41.7
Total	5412	100.00	1093	100.0

Table 16: Reasons for student dropout

Area	Composite Score			
	Public	Teacher	Student	Total Score
Family problem	14108	3537	2950	20595
Not interested to study	11692	2422	2497	16611
Cannot meet the education expenses	11739	1873	918	14530
Did not qualify	6575	1076	1401	9052
Repeated failing	4995	1444	1171	7610
Pregnancy	4135	544	1390	6069
Needs to work at home	3992	879	645	5516
Illness	3581	672	933	5186
Marriage	3585	555	773	4913
Needs to earn for the family	3231	534	547	4312
Discipline problems in the school	2455	762	785	4002
Lack of help in studies	2464	486	427	3377
School is too far	2400	455	407	3262
Corporal punishment in school	1142	89	270	1501
Lack of proper facilities in the school	804	101	121	1026
Too old	537	101	215	853
Bullying at school	477	75	279	831
Too young	478	55	81	614

Table 17: Have you (teacher) received training on teaching students with special needs.

Area	Count	Percent
Yes	94	8.60
No	979	89.57
Not aware of	20	1.83
Total	1093	100.0

Table 18: Need for training on teaching students with special needs.

Area	Count	Percent
Yes	916	93.47
No	30	3.06
Not aware of	34	3.47
Total	980	100.0

Table 19: Areas that need immediate attention to improve overall education quality (by public)

Areas that need immediate attention	Score
Teacher Competency	17161
Leadership quality of Principal	14122
Values in student	10131
Teacher Accountability	8816
Resource Allocation	6397
Parents/community participation	6023
Health and wellbeing of students	5513
Student learning assessment	5449
Curriculum relevancy	4616
School culture	2127

Table 20: Areas that need immediate attention to improve overall education quality (by teachers and principals)

Areas that need immediate attention	Score
Teacher Competency	3619
Curriculum relevancy	2474
Leadership quality of Principal	2338
Resource Allocation	1734
Values in student	1512
Teacher Accountability	1273
Student learning assessment	820
Parents/community participation	660
Health and wellbeing of students	533
School culture	532

Table 21: Choice of compulsory and elective subjects at primary level

Subjects	Compulsory & Elective	Public	Teachers	Students
Dzongkha	Compulsory	5348	1055	1091
	Elective	81	38	34
English	Compulsory	5335	1058	1098
	Elective	95	35	28
Mathematics	Compulsory	5062	1008	986
	Elective	368	85	140
Science	Compulsory	4495	902	790
	Elective	932	191	336
Social studies	Compulsory	3872	652	568
	Elective	1556	441	557
Environmental Studies	Compulsory	3570	466	500
	Elective	1857	623	626
Languages (International languages besides English)	Compulsory	2606	185	615
	Elective	2821	900	510
Health & Physical Education	Compulsory	3888	443	785
	Elective	1540	650	340
Visual Arts and Craft	Compulsory	2380	272	404
	Elective	3046	820	721
Information Technology (ICT)	Compulsory	3663	720	570
	Elective	1763	371	556
Moral/values Education	Compulsory	3988	639	779
	Elective	1439	453	345
Buddhist Studies	Compulsory	3211	298	592
	Elective	2214	790	532
Vocational & Technical Studies	Compulsory	2210	230	322
	Elective	3214	859	802
Music Education	Compulsory	2297	180	374
	Elective	3126	911	751

Table 22: Choice of compulsory and elective subjects at secondary level

Subjects	Compulsory & Elective	Public	Teachers	Students
Dzongkha	Compulsory	5351	1053	1077
	Elective	77	34	52
English	Compulsory	5354	1061	1105
	Elective	74	26	25
Mathematics	Compulsory	5166	991	1011
	Elective	261	96	119
Science	Compulsory	4948	889	907
	Elective	476	197	223
Physics	Compulsory	4611	785	781
	Elective	816	302	349
Chemistry	Compulsory	4543	785	737
	Elective	883	302	393
Biology	Compulsory	4599	776	845
	Elective	826	311	285
Business Mathematics	Compulsory	4062	509	512
	Elective	1358	573	617
Economics	Compulsory	4287	598	732
	Elective	1135	488	395
Commerce	Compulsory	3762	457	454
	Elective	1652	626	673
History & Civics	Compulsory	4383	708	873
	Elective	1042	379	257
Geography	Compulsory	4332	693	816
	Elective	1092	394	314
Information Technology(ICT)	Compulsory	4399	797	706
	Elective	1023	289	422
Language Studies	Compulsory	3492	405	788
	Elective	1929	678	342
Rigzhung & Linguistics	Compulsory	3122	307	418
	Elective	2298	776	695
Moral/Values Education	Compulsory	3788	588	688
	Elective	1635	498	439
Health, Physical Education & Sports	Compulsory	3652	346	793
	Elective	1774	738	337
Buddhist Studies	Compulsory	3387	275	649
	Elective	2032	807	480
Life Skills	Compulsory	3508	604	884
	Elective	1916	479	246
Vocational & Technical Studies	Compulsory	2833	260	456
	Elective	2591	825	674
Music Education	Compulsory	2444	150	417
	Elective	2979	932	712
Visual Arts and Crafts	Compulsory	2580	174	457
	Elective	2841	909	673
Media Education	Compulsory	2840	277	585
	Elective	2582	808	544
Agricultural and Food Security	Compulsory	3242	342	638
	Elective	2164	742	490

Table 23: Choice of compulsory and elective subjects at higher secondary level

Subjects	Compulsory Elective	Public	Teachers	Students
Dzongkha	Compulsory	5227	998	1045
	Elective	182	80	70
English language	Compulsory	5290	1041	1086
	Elective	121	39	31
Mathematics	Compulsory	4976	823	944
	Elective	435	257	173
Biology	Compulsory	4570	629	820
	Elective	842	451	296
Chemistry	Compulsory	4497	649	754
	Elective	914	431	362
Physics	Compulsory	4482	649	783
	Elective	929	431	333
History & Civics	Compulsory	4373	598	790
	Elective	1036	482	327
Geography	Compulsory	4228	581	724
	Elective	1181	499	392
Economics	Compulsory	4379	577	772
	Elective	1030	503	344
Commerce	Compulsory	4337	559	633
	Elective	1072	520	483
Accountancy	Compulsory	4466	583	534
	Elective	944	496	580
Information Technology (ICT)	Compulsory	4495	740	699
	Elective	916	340	417
Media Education	Compulsory	3306	590	655
	Elective	2103	488	461
English Literature	Compulsory	4192	354	601
	Elective	1214	723	513
Vocational & Technical Studies	Compulsory	3115	640	955
	Elective	2296	437	162
Moral/Values Education	Compulsory	3755	301	502
	Elective	1653	777	615
Health, Physical Education & Sports	Compulsory	3557	303	703
	Elective	1854	776	414
Health & Reproductive Education	Compulsory	3487	368	701
	Elective	1923	710	416
Music Education	Compulsory	2423	144	382
	Elective	2987	932	735
Visual Arts	Compulsory	2488	143	392
	Elective	2920	933	725
Home Science	Compulsory	2585	149	434
	Elective	2822	927	683
Language Studies	Compulsory	3339	309	797
	Elective	2069	766	320
Advertising	Compulsory	2636	120	433
	Elective	2771	956	682
Business Law	Compulsory	3236	207	546
	Elective	2169	870	571
Business Management	Compulsory	3487	255	536
	Elective	1923	823	581
Entrepreneurial Skills	Compulsory	3622	330	599
	Elective	1784	745	497
Financial Management	Compulsory	3713	317	556
	Elective	1695	759	556
Buddhist Studies	Compulsory	3368	263	620
	Elective	2039	813	496
Rigzhung & Linguistics	Compulsory	3160	271	508
	Elective	2246	805	605
Marketing	Compulsory	3199	214	343
	Elective	2207	864	772
Office Skills	Compulsory	3540	312	684
	Elective	1865	767	432
General Science	Compulsory	2929	244	691
	Elective	2477	833	425
Functional Mathematics	Compulsory	2897	262	616
	Elective	2492	815	500

Table 24: Induction programme received by principals

	Count	Percentage
Yes	90	58.06
No	65	41.94
Total	155	100.00

Table 26: Did you (principal) receive PD programme in the last 3 years

	Count	Percent
Yes	114	73.55
No	41	26.45
Total	155	100.00

Table 28: Did you (teacher) receive PD programme in the last 3 years

	Count	Percent
Yes	884	80.9
No	209	19.1
Total	1093	100.0

Table 29: Impact of PD programme (teachers/principals)

Areas	Opinion	Count
Changed my personal beliefs about teaching	Disagree	65
	Not Sure	71
	Agree	726
Helped me to learn new ideas about my profession	Disagree	27
	Not Sure	20
	Agree	816
Helped me to learn new classroom practices	Disagree	29
	Not Sure	32
	Agree	800
Helped me in formative assessment practices	Disagree	36
	Not Sure	79
	Agree	746
Improved my understanding about student's learning	Disagree	28
	Not Sure	40
	Agree	794
New ideas introduced were easy to understand	Disagree	41
	Not Sure	107
	Agree	713
Improve my ICT skill in teaching practices	Disagree	89
	Not Sure	126
	Agree	647
Help me to practice differentiated instructions in classroom teaching	Disagree	43
	Not Sure	81
	Agree	739
Helped me frame better test items with quality marking criteria	Disagree	43
	Not Sure	90
	Agree	729
SBIP were effective in improving teacher proficiency	Disagree	35
	Not Sure	69
	Agree	757

Table 25: Benefit of the induction programme

	Count	Percentage
Benefitted	78	86.67
Not sure	11	12.22
Did not benefit	1	1.11
Total	90	100.00

Table 27: Impact of PD programmes (by principals)

	Benefitted	Not sure	Did not benefit	Total
Instructional leader	105	6	2	113
School management	101	8	2	111
ICT Skills	84	19	9	112
Subject content knowledge	65	27	18	110
Writing skill	55	37	18	110
Communication skill	82	22	6	110

Table 30: Number of PD attended (by teachers and principals)

Type of PD	Year	Number Attended	No of Teachers
SBIP	2011	1 to 5	500
		6 to 10	62
		More than 10	5
	2012	1 to 5	490
		6 to 10	100
		More than 10	5
	2013	1 to 5	576
		6 to 10	143
		More than 10	9
DBIP	2011	1 to 5	145
		6 to 10	1
		More than 10	0
	2012	1 to 5	171
		6 to 10	4
		More than 10	0
	2013	1 to 5	152
		6 to 10	0
		More than 10	0
CBIP	2011	1 to 5	67
		6 to 10	0
		More than 10	0
	2012	1 to 5	75
		6 to 10	0
		More than 10	0
	2013	1 to 5	83
		6 to 10	0
		More than 10	0
NBIP	2011	1 to 5	159
		6 to 10	0
		More than 10	0
	2012	1 to 5	192
		6 to 10	1
		More than 10	0
	2013	1 to 5	210
		6 to 10	2
		More than 10	0

Table 31: Choice of vocational courses

Vocational subject	Public	Teacher	Student
IT Application	2888	758	361
Health Care and Nutrition	2578	629	500
Child Care	2400	333	265
Tourism	1419	242	452
Accounting and Book keeping	1407	165	195
Nursing	1203	182	113
Hotel Management	1028	152	126
Media (Music/Movie production)	902	251	493
Home Sciences	775	166	133
Home Appliance Repair	614	244	90
Fashion Design	369	58	196
Photography	354	57	323
Beauty Care	252	37	63
Other	97	6	87

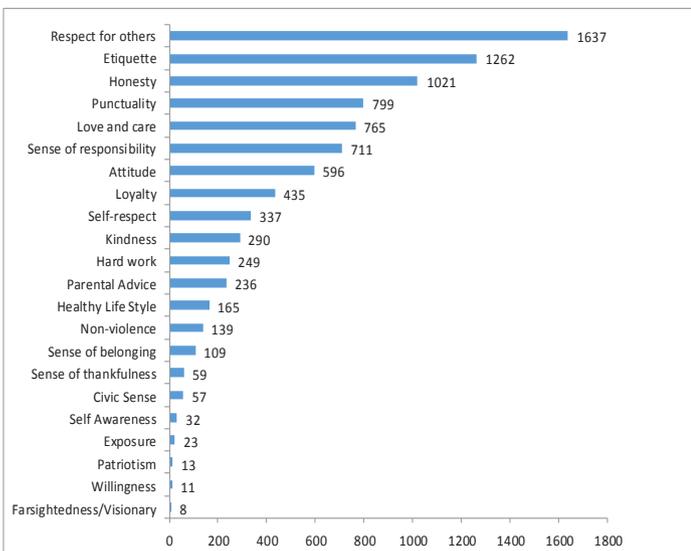


Figure 5: Three important values expressed by the public

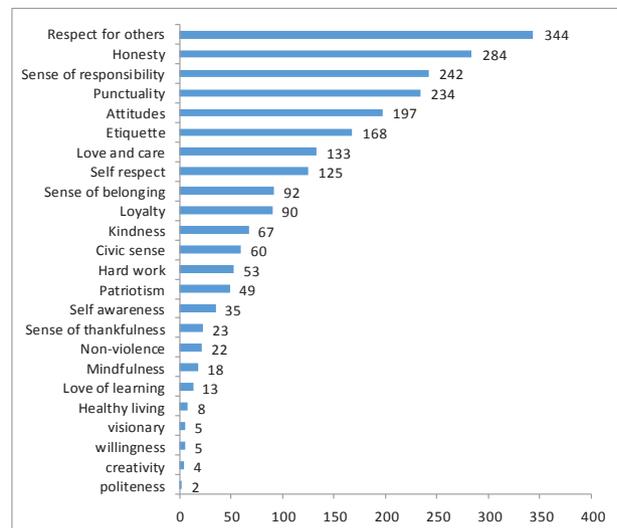


Figure 6: Three important values expressed by the teacher and principal

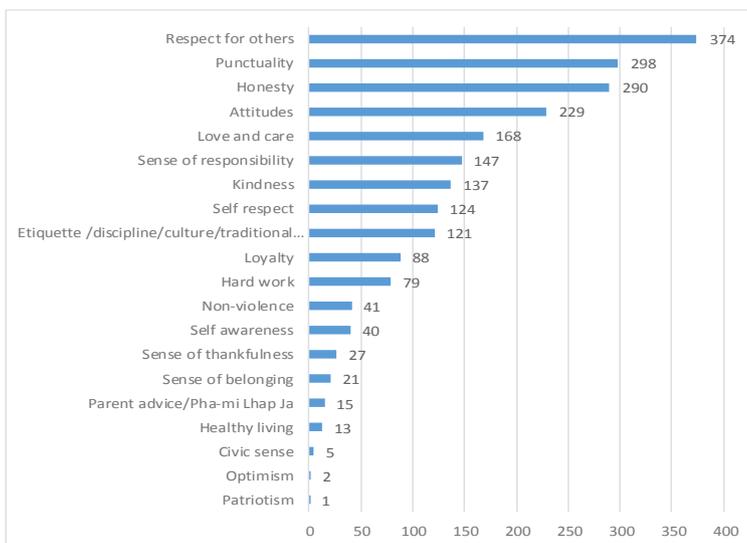


Figure 7: Three important values expressed by students

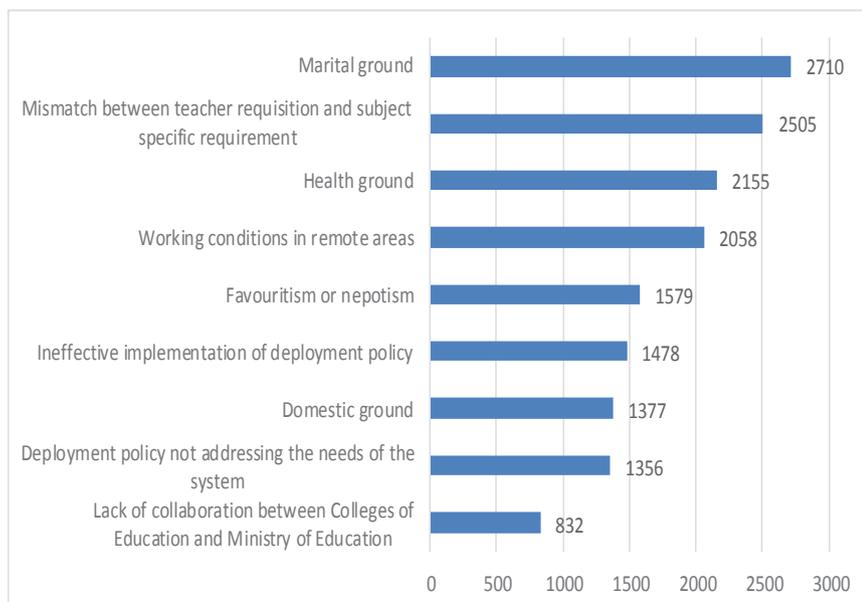


Figure 8: Reasons for teacher deployment issue (by teachers and principals)

Table 32: Ways to minimize equity gaps

Ways to minimize equity gaps between rural and urban	Score
Equitable distribution of resources	21710
Improve working conditions	20513
Ensure fair distribution of experienced, dedicated and competent teachers	19239
Deploy capable principals to remote schools	16861
Provide more opportunities for rural teachers	15817

Table 33: Views on school resources (teachers and principals)

Views on school resources	Disagree	Not sure	Agree	Total
school receives adequate resources	446	145	504	1095
Schools to be involved in budget planning at Dzongkhag level.	65	200	828	1093
School budget is utilized transparently	98	237	760	1095
Resource are used optimally in school	73	159	860	1092
School receives curriculum materials on time	373	207	515	1095
Teachers have access to available resources	274	131	689	1094
Teaching learning materials provided are of good quality	381	245	467	1093
School has adequate number of support staff.	370	99	625	1094
Support staffs are trained to perform their duties	368	291	436	1095
Involve parents/communities as far as possible to support school	113	122	860	1095

Table 34: View on school management (by teachers and principals)

School management	Never	Sometimes	Always	Total
School makes decisions based on relevant data	15	510	569	1094
Policy makers use research findings to make decisions	125	718	250	1093
School involves community in development activities	93	667	331	1091
School involves community in decision making	135	752	207	1094
School involves students in making management decisions	180	713	201	1094
Teachers are involved in making management decisions	51	504	538	1093
Transparency and accountability are practiced strictly in schools	57	390	646	1093

Table 35: View on School Management Board (by teachers and principals)

School Management Board	Yes	No	Not sure	Total
Provide vision and direction to the school	723	149	219	1091
Uphold the school level policies to enhance management efficiency	696	144	249	1089
Approve programmes and activities	726	156	205	1087
Ensure reviews and assessments of the schools performance	717	163	210	1090
Facilitate support to plan and carry out development work	709	162	220	1091
Mobilize human resources support from the community	456	325	310	1091
Mobilize material resources support from the community	443	337	309	1089
Assist in organizing major school events	744	164	180	1088
Provide guidance and support to the School Management Team	696	157	235	1088

Table 36: General concerns (by students)

General concerns	Yes	No	Not sure	Total
Saturday to be kept as non-working day	493	438	200	1131
School vacation given as per the location of the school	458	336	334	1128
All schools to have common school uniform	448	572	112	1132

Table 37: General concerns (by teachers and principals)

General concerns	% Not desirable	% Not sure	% Desirable
Dedicate Saturdays for teachers professional development pro-grammes	17.4	16.6	66.0
Saturdays to be kept as non-working day	12.1	17.2	70.7
All schools to have common school uniform	66.8	17.2	16.0
School vacation to be given as per the location of the school	27.8	29.2	43.1
Schools can decide on the school timings	9.6	11.1	79.3
Education Act needs to be put in place.	1.9	27.8	70.3
Introduce a large school system in which all facilities are built-in for students	14.0	29.6	56.4

Table 38: General concerns (by public)

General concerns	% not desirable	% not sure	% desirable
Dedicate Saturdays for teacher's professional development programmes	22.3	26.0	51.7
Saturdays to be kept as non-working day	49.7	19.7	30.6
All schools to have common school uniform	59.4	13.6	27.0
School vacation to be given as per the location of the school	29.5	23.0	47.5
Schools can decide on the school timings	21.5	17.1	61.4
Education Act needs to be put in place	6.3	23.8	70.0
Introduce a large school system in which all facilities are built-in for students	11.9	23.1	65.0

Table 39: Public view on factors contributing to teacher quality

Factors contributing to teacher quality	Disagree	Not sure	Agree	Total
Educational qualification	185	376	4866	5427
Recruitment/selection process	290	1001	4120	5411
Entry criteria to the teaching colleges	251	1028	4110	5389
Pre-service teacher preparation	299	1124	3956	5379
Teacher professional development programmes	170	797	4432	5399
Personal attributes	177	1077	4132	5386
Remuneration	324	1487	3529	5340
Working conditions	258	762	4351	5371
Strict implementation of Teacher Human Resource Policy	251	1265	3869	5385
Establish a separate agency responsible for teacher registration, licensing, selection/recruitment, welfare, etc	591	1764	3045	5400
Teaching fraternity delinked from civil service system	974	2064	2355	5393

Table 40: Public view on factors contributing to principal quality

Factors contributing to principal quality	Disagree	Not sure	Agree	Total
Educational qualification	145	275	5003	5453
Recruitment/selection process	157	674	4577	5408
Leadership skills	93	394	4926	5413
Principal professional development programmes	136	634	4636	5406
Personal attributes	129	853	4421	5403
Remuneration	213	1336	3832	5381
Working conditions	169	650	4587	5406

Table 41: Teacher and principal view on factors contributing to teacher quality

Factors contributing to teacher quality	Disagree	Not sure	Agree	Total
Education qualification	67	33	993	1093
Recruitment/selection process	65	79	948	1092
Entry criteria to the teaching colleges	72	92	927	1091
Pre-service teacher preparation	104	154	832	1090
Teacher professional development programmes	39	19	1034	1092
Guidance and support of principal	48	28	1018	1094
Personal attributes	36	57	997	1090
Remuneration	44	148	892	1084
Working conditions	42	31	1018	1091
Strict implementation of teacher human resource policy	68	175	846	1089
Establish a separate agency responsible for teacher registration, licensing, selection/recruitment, welfare, etc.	99	283	711	1093
Teaching fraternity delinked from civil service system	174	458	458	1090

Table 42: Teacher and principal view on factors contributing to principal quality

Factors contributing to Principal quality	Disagree	Not sure	Agree	Total
Educational qualification	53	40	993	1086
Recruitment/selection process	49	51	986	1086
Leadership skills	34	4	1048	1086
Principal professional development programmes	29	27	1029	1085
Personal attributes	29	31	1024	1084
Remuneration	38	142	903	1083
Working condition	41	39	1006	1086

Table 43: Views on assessment practices

Area		Public	Teachers & Principals
The present class X assessment addresses testing of affective domains	Disagree	357	72
	Not sure	2156	368
	Agree	2894	640
The present class X assessment addresses testing of psychomotor domains	Disagree	334	77
	Not sure	2516	389
	Agree	2547	614
The present class XII assessment addresses testing of affective domains	Disagree	215	60
	Not sure	2114	427
	Agree	3064	586
The present class XII assessment addresses testing of psychomotor domains	Disagree	246	52
	Not sure	2415	454
	Agree	2725	567
The examination questions tests mostly the cognitive domains	Disagree	274	85
	Not sure	2170	331
	Agree	2921	664
Class IX curriculum content should be tested in Class X examinations	Disagree	687	241
	Not sure	1459	292
	Agree	3248	545
Class XI curriculum content should be tested in Class XII examinations	Disagree	699	226
	Not sure	1409	287
	Agree	3281	559
The assessment system in the school is holistic	Disagree	307	77
	Not sure	2222	311
	Agree	2842	691

Table 44: Views on student learning and achievement (by public)

Areas	Opinion	Count
I am happy with the teaching methods used in my child's school	Disagree	380
	Not sure	742
	Agree	4290
The school carefully monitors my child's progress	Disagree	415
	Not sure	1007
	Agree	3991
The school provides regular and useful information on my child's progress	Disagree	495
	Not sure	997
	Agree	3912
My child's school does a good job in educating students	Disagree	267
	Not sure	1039
	Agree	4096
The academic achievements of students in the school are high	Disagree	513
	Not sure	1565
	Agree	3312
Parents can make a big difference in child's academic performance	Disagree	319
	Not sure	487
	Agree	4604
My child's school provides regular home work	Disagree	402
	Not sure	769
	Agree	4231
My child's school provides programmes for students with special needs	Disagree	595
	Not sure	1384
	Agree	3416

Table 45: Ways to improve Dzongkha learning

Improving Dzongkha learning	Opinion	Student	Teacher
Improve teaching learning materials	Agree	755	987
	Disagree	107	41
	Not sure	270	60
	Total	1132	1088
Introduce language labs in schools	Agree	613	698
	Disagree	160	109
	Not sure	354	279
	Total	1127	1086
Have good Dzongkha teachers	Agree	999	1009
	Disagree	55	37
	Not sure	79	41
	Total	1133	1087
Assess student learning continually	Agree	793	997
	Disagree	87	25
	Not sure	250	66
	Total	1130	1088

Table 46: Ways to improve English learning

Improving English learning	Opinion	Student	Teacher
Improve teaching learning materials	Agree	772	992
	Disagree	97	43
	Not sure	262	59
	Total	1131	1094
Introduce language labs in schools	Agree	735	757
	Disagree	103	81
	Not sure	291	255
	Total	1129	1093
Have good English teachers	Agree	993	1017
	Disagree	52	33
	Not sure	80	45
	Total	1125	1095
Assess student learning continually	Agree	785	995
	Disagree	92	32
	Not sure	250	67
	Total	1127	1094

Table 47: Ways to improve Mathematics learning

Improving Mathematics learning	Opinion	Student	Teacher
Improve teaching learning materials	Agree	846	840
	Disagree	86	84
	Not sure	196	168
	Total	1128	1092
Introduce Mathematics laboratory in schools	Agree	573	655
	Disagree	228	116
	Not sure	323	320
	Total	1124	1091
Have good Mathematics teachers	Agree	1021	1048
	Disagree	43	15
	Not sure	64	29
	Total	1128	1092
Assess student learning continually	Agree	830	1031
	Disagree	88	18
	Not sure	211	44
	Total	1129	1093

Table 48: Ways to improve Science learning

Improving Science learning	Opinion	Student	Teacher
Improve teaching learning materials	Agree	893	1037
	Disagree	67	23
	Not sure	157	33
	Total	1134	1094
Have good Science teachers	Agree	985	1030
	Disagree	44	22
	Not sure	87	39
	Total	1134	1094
Assess student learning continually	Agree	790	1019
	Disagree	87	18
	Not sure	237	56
	Total	1134	1094

Appendix IV: Education Blueprint Cost Simulation Models

Teacher Projection: Base Scenario

Student Teacher Ratio	Judgement	GR										
	2014	2014-2024	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD GER	11	5.9	12	13	13	14	15	16	17	18	19	20
Primary GER	20	-	20	20	20	20	20	20	20	20	20	20
Lower and Middle	20	-	20	20	20	20	20	20	20	20	20	20
Higher Secondary GER	20	-	20	20	20	20	20	20	20	20	20	20
Tertiary education	18	-	18	18	18	18	18	18	18	18	18	18

Teacher Projection

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD	435	518	571	625	679	785	861	933	987	1024	1067
Primary	2522	5604	5684	5774	5869	5977	6091	6010	5901	5762	5591
Lower and Middle	4098	2449	2479	2526	2600	2663	2750	2848	2956	3074	3202
Higher Secondary	2037	844	819	792	766	733	696	732	775	828	890
School education	8657	8897	8982	9092	9235	9373	9537	9589	9632	9663	9683
% of teachers receiving professional development	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Tertiary education	632	854	881	905	888	943	961	992	1,027	1,066	1,105

Infrastructure (Public)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD Centres	159	200	233	270	310	379	439	503	562	616	679
Students/centre	22	22	22	22	22	22	22	22	22	22	22
Classrooms											
Primary	2,342	2,580	2,615	2,654	2,695	2,743	2,793	2,754	2,702	2,636	2,556
Students/classroom	35	35	35	35	35	35	35	35	35	35	35
Lower and middle secondary	2590	2,622	2,658	2,711	2,791	2,859	2,950	3,051	3,161	3,279	3,405
Students/classroom	15	15	15	14	14	14	14	14	14	13	13
Higher secondary	661	637	613	589	566	537	506	528	555	588	627
Students/classroom	14	14	14	14	14	14	14	14	14	14	14

GER Projection

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD (3-5)		12%	14%	16%	19%	24%	29%	34%	39%	44%	50%
Primary (6-12)		112%	110%	109%	108%	106%	105%	104%	102%	101%	100%
Lower and middle (13-16)		96%	97%	97%	98%	98%	98%	99%	99%	100%	100%
Higher Secondary (17-18)		59%	59%	59%	59%	59%	60%	60%	60%	60%	60%

NER Projection

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD (3-5)		13%	16%	20%	25%	32%	40%	50%	63%	79%	100%
Primary (6-12)		95%	96%	96%	97%	97%	98%	98%	99%	99%	100%
Lower and middle (13-16)		86%	88%	89%	91%	92%	94%	95%	97%	98%	100%
Higher Secondary (17-18)		31%	35%	40%	46%	52%	59%	68%	77%	88%	100%

Financial Projection

Estimated unit cost in Nu, 2014 current price

	Annual Increase	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD	5.3%	10000	10530	11088	11676	12295	12946	13632	14355	15116	15917	16760
Primary	5.3%	15000	15795	16632	17514	18442	19419	20449	21532	22673	23875	25141
Lower and middle secondary	5.3%	50000	52650	55440	58379	61473	64731	68162	71774	75578	79584	83802
Higher secondary	5.3%	90000	94770	99793	105082	110651	116516	122691	129194	136041	143251	150843
Additional cost for boarding students	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
TVET	5.3%	233350	245717	258740	272454	286894	302099	318110	334970	352724	371418	391103
Special education	5.3%	100000	105300	110881	116758	122946	129462	136323	143548	151157	159168	167604
Tertiary education (in Bhutan)	5.3%	100000	105300	110881	116758	122946	129462	136323	143548	151157	159168	167604
Tertiary education (abroad)	5.3%	210000	221130	232850	245191	258186	271870	286279	301452	317429	334252	351968
NFE	5.3%	15000	15795	16632	17514	18442	19419	20449	21532	22673	23875	25141
CE	5.3%	15000	15795	16632	17514	18442	19419	20449	21532	22673	23875	25141
Teacher professional development	5.3%	23000	24219	25503	26854	28278	29776	31354	33016	34766	36609	38549

Financial requirement to implement Bhutan Education Blueprint in 2014 current price (in million Nu)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ECCD (3-5)	35	46	57	69	84	108	132	159	187	216	250
Primary (6-12)	1329	1558	1686	1831	1985	2157	2355	2478	2594	2700	2789
Lower and middle secondary (13-16)	2298	2216	2359	2526	2728	2932	3177	3445	3741	4067	4422
Higher secondary (17-18), excluding TVET	813	657	646	627	601	558	508	534	547	557	563
Tertiary Education	1517	1718	1925	2136	2260	2579	2818	3117	3450	3818	4221
NFE	120	139	161	186	216	250	290	336	389	450	522
CE	31	36	42	48	56	65	75	87	101	117	135
Cross-cutting expenditure	184	191	206	223	238	259	281	305	330	358	387
Total cost	6327	6562	7081	7645	8168	8908	9635	10460	11339	12283	13288
Of which: teacher development	-	215	229	244	261	279	299	317	335	354	373
of which: capital cost	1645	1706	1841	1988	2124	2316	2505	2720	2948	3194	3455
% of recurrent	74%	74%	74%	74%	73%	73%	73%	73%	73%	73%	73%
% of capital	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	27%
% Change		4%	8%	8%	7%	9%	8%	9%	8%	8%	8%
GDP, 2014 current price	113,019	119,009	125,316	131,958	38,952	146,317	54,071	162,237	170,836	179,890	89,424
GDP annual growth rate	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
Share of education expenditure as % of GDP	5.6%	5.5%	5.7%	5.8%	5.9%	6.1%	6.3%	6.4%	6.6%	6.8%	7.0%

Appendix V: Acknowledgment

The Ministry of Education acknowledges the following organizations and individuals for their contribution and support in the development of the Bhutan Education Blueprint 2014-2024

- Bhutan Broadcasting Service (BBS)
- Bhutan Council for School Examinations and Assessment (BCSEA)
- Business Community
- College of Natural Resources (CNR)
- Dasho Dzungdas of all Dzongkhags
- District Education Officers of all Dzongkhags
- Dzungkha Development Commission (DDC)
- General Public of Bhutan
- Institute of Language and Culture Studies (ILCS)
- Jigme Namgyal Polytechnic
- Kuensel Corporation Limited
- Ministry of Education (MoE)
- Ministry of Education, Malaysia
- Ministry of Labour and Human Resources (MoLHR)
- Monk Body
- National Council of Bhutan
- National Statistical Bureau (NSB)
- Paro College of Education (PCE)
- Prime Minister's Office (PMO)
- Principals, Teachers and Students of all schools
- Royal Bhutan Army (RBA)
- Royal Bhutan Police (RBP)
- Royal Body Guards (RBG)
- Royal Education Council (REC)
- Royal University of Bhutan (RUB)
- Sherubtse College
- Thromde Education Officers of all Thromdes
- Thrompoens of all Thromdes
- UNESCO Office Bangkok
- UNESCO Office Bhutan
- UNESCO Office Malaysia
- UNESCO Office New Delhi

1. National Steering Committee

Sl. No.	Name	Designation	Agency
1	Lyonchhen Tshering Tobgay	Chairperson	Hon'ble Prime Minister
2	Lyonpo Mingbo Dukpa	Vice Chair	Hon'ble Minister for Ministry of Education
3	Lyonpo Neema Sangye Tshempo	Member	Hon'ble Minister for Ministry of Labour and Human Resources
4	Sangay Zam	Member	Hon'ble Secretary for Ministry of Education
5	Sonam Wangchuk	Member	Hon'ble Secretary, Gross National Happiness Commission
6	Nidup Dorji	Member	Vice Chancellor, Royal University of Bhutan
7	Lhundup Dukpa	Member	Offtg. Director, Royal Education Council
8	Karma Yeshey	Member Secretary	Director General, Department of School Education, MoE

2. National Task Force

Sl. No.	Name	Designation	Agency
1	Lyonpo Mingbo Dukpa	Chairperson	Hon'ble Minister for Ministry of Education
2	Sangay Zam	Co-Chair	Hon'ble Secretary for Ministry of Education
3	Karma Yeshey	Member Secretary	Director General, Department of School Education, MoE
4	Nidup Dorji	Member	Vice Chancellor, Royal University of Bhutan
5	Tshewang Tandin	Member	Director General, Department of Adult and Higher Education, MoE
6	Chencho Dorji	Member	Director General, Department of Youth and Sports, MoE
7	Kesang Choden Dorji	Member	Department of Curriculum Research and Development, MoE
8	Kinga Dakpa	Member	Secretary, Bhutan Council for School Examinations and Assessment
9	Lhundup Dukpa	Member	Offtg. Director, Royal Education Council

10	Tandin Dorji	Member	Chief, Dzongkha Development Commission
11	Dechen Zam	Member	Chief Planning Officer, Policy and Planning Division, MoE
12	Phuntsho Lham	Member	Chief EMO, Education Monitoring and Support Services Division, DSE, MoE
13	Kinley Gyeltshen	Member	Chief HRO, Human Resource Division, MoE

3. Core Working Group in Education Review Office

Sl. No.	Name	Designation	Agency
1	Lyonpo Mingbo Dukpa	Chair	Hon'ble Minister for Ministry of Education
2	Sangay Zam	Vice Chair	Hon'ble Secretary for Ministry of Education
3	Karma Yeshey	Project Director	Director General, Department of School Education, MoE
4	Phuntsho Wangdi	Project Manager	Chief Programme Officer, School Liaison and Coordination Division, DSE, MoE
5	Tshering Tenzing	Education Review Officer	Executive Specialist , Bhutan Council for School Examinations and Assessment
6	Geewanath Sharma	Education Review Officer	Curriculum Officer I, Department of Curriculum and Research Division, MoE
7	Tashi Lhamo	Education Review Officer	Education Monitoring Officer I, Education Monitoring and Support Services Division, DSE, MoE
8	Sangye Choden	Education Review Officer	Sr. Programme Officer, Quality Assurance Accreditation Division, DAHE, MoE
9	Dochu	Education Review Officer	Sr. Planning Officer, Policy and Planning Division, MoE
10	Leki Phuntsho	Education Review Officer	Sr. Human Resource Officer , Human Resource Division, MoE
11	Sonam Wangdi	Education Review Officer	Asst. Research Officer, Royal Education Council

4. Supervisors for the Field Surveys

Sl. No.	Name	Designation	Agency
1	Yuden	Chief Research Officer	Royal Education Council
2	Karma Choden	Chief Programme Officer	Private School Division, DSE, MoE
3	Dorji Tshewang	Principal Curriculum Officer	Department of Curriculum and Research Development, MoE
4	Tenzin Dorji	Curriculum Officer	Department of Curriculum and Research Development, MoE
5	Rinzin Jamtsho	Dy. Chief Programme Officer	Higher Education Planning Division, DAHE, MoE
6	Rinzin Choden	Dy. Chief Research Officer	Royal Education Council
7	Kaka	Education Monitoring Officer II	Education Monitoring and Support Services Division, DSE, MoE
8	Sonam Tshering	Curriculum Officer II	Department of Curriculum and Research Development, MoE
9	Pedup Dukpa	Research Officer	Royal Education Council
10	Dorji Wangchuk	Programme Officer	Scouts Culture and Education Division, DYS, MoE
11	Jambay Wangmo	Asst. ICT Officer	Bhutan Council for School Examination and Assessment
12	Tshewang Dorji	Asst. Programme Officer	Quality Assurance Accreditation Division, DAHE, MoE

5. List of Data Entry Officials

Sl. No.	Name	Designation	Parent Office
1	Dawa	Sr. Statistical Officer	National Statistical Bureau
2	Peden	Sr. ICT Officer	National Statistical Bureau
3	Nima Deki Sherpa	Sr. ICT Technical Associate III	National Statistical Bureau
4	Rinchen Tshering	Statistical Investigator I	National Statistical Bureau
5	Tandin Dorji	ICT Technical Associate I	National Statistical Bureau
6	Sonam Zangmo	ICT Technical Associate II	National Statistical Bureau

6. Intra-Ministerial Consultative Meeting

Sl. No.	Name	Designation	Agency
1	Tshewang Tandin	Director General	Department of Adult And Higher Education, MoE
2	Chencho Dorji	Director General	Department of Youth and Sports, MoE
3	Kesang Choden Dorji	Director	Department of Curriculum and Research Development, MoE
4	Mindu Gyeltshen	Principal Education Monitoring Officer	Education Monitoring and Support Services Division, DSE, MoE
5	Jamyang Choden	Chief Programme Officer	School Agriculture Feeding and Environment Division, DSE, MoE
6	Tashi Pelzom	Chief Programme Officer	Career and Counselling Division, DYS, MoE
7	Karma Tenzin	Chief Programme Officer	Scout Education and Culture Division, DYS, MoE
8	Thinley Rinzin	Dy. Chief Planning Officer	Policy and Planning Division, MoE
9	Karma Choden	Dy. Chief Programme Officer	ECCD and SEN Division, DSE, MoE
10	Nima Gyeltshen	Dy. Chief Programme Officer	Games and Sport Division, DYS, MoE
11	Ugyen Dorji	Chief Programme Officer	Department of Curriculum and Research Development, MoE
12	Surjay Lepcha	Curriculum Officer	Department of Curriculum and Research Development, MoE
13	Choden	Human Resource Officer	Human Resource Division, MoE
14	Lhundup Dukpa	Offtg. Director	Royal Education Council
15	Namgay	Chief Research Officer	Royal Education Council
16	Khandu Dorji	Sr. Research Officer	Royal Education Council
17	Deki	Sr. Research Officer	Royal Education Council
18	Pedup Dukpa	Research Officer	Royal Education Council
19	Namgay Dema	Research Officer	Royal Education Council

20	Kinley Wangmo	Research Officer	Royal Education Council
21	Sangay Tenzin	Executive Specialist	Bhutan Council for School Examination and Assessment
22	Sangay Tenzin	Chief Adm. Officer	Bhutan Council for School Examination and Assessment
23	Mani Dorji	Education Monitoring Officer	Bhutan Council for School Examination and Assessment
24	Kinley Dema	Education Monitoring Officer	Bhutan Council for School Examination and Assessment
25	Karma Yangchen	Education Monitoring Officer	Bhutan Council for School Examination and Assessment
26	Arjun Kr. Gurung	Education Monitoring Officer	Bhutan Council for School Examination and Assessment

7. Consultation Meeting with DEOs, TEOs and Principals

Sl. No.	Name	Designation	Agency
1	Dorji Wangchuk	Dy. Chief Thromde Education Officer	Thimphu Thromde
2	Norbu Gyeltshen	Dy. Chief District Education Officer	Paro Dzongkhag
3	Tshering Penjor	Sr. District Education Officer	Thimphu
4	Norbu Gyeltshen	Principal	Ugyen Academy, Punakha
5	Yesh Bdr. Ghalley	Principal	Punakha HSS
6	Pema Choden Wangdi	Principal	Yangchenphug HSS, Thimphu
7	Chencho Tshering	Principal	Yoezerling HSS, Paro
8	Tshering Dorji	Principal	Rinchen HSS, Thimphu
9	Wangmo	Principal	Shaba MSS, Paro
10	Tshewang Choden Wangdi	Principal	Druk School, Thimphu
11	Jigme Choden	Principal	Changzamtog LSS
12	Rinchen Dorji	Teacher	Punakha HSS, Punakha
13	Dechen Choden	Teacher	Rinchen HSS, Thimphu

8. Translation Team into Dzongkha

Sl. No.	Name	Designation	Agency
1	Tenzin Rabgyel	Dy. Chief Program Officer	Non Formal Education and Continuing Education Division, DAHE, MoE
2	Tshering Penjor	Education Monitoring Officer II	Education Monitoring Support Service Division, DSE, MoE
3	Dorji	Curriculum Officer II	Department of Curriculum Research Development, MoE

9. One-on-one Interview with eminent individuals

Sl. No.	Name	Designation
1	Lyonpo Sonam Tobgay	Former Chief Justice of Bhutan
2	Lyonpo Thinley Gyamtsho	Former Chair, Royal Civil Service Commission
3	Lyonpo T. S. Powdyel	Former Education Minister
4	Lyonpo Norbu Wangchuk	Minister, Ministry of Economic Affairs
5	Dasho Nado Rinchen	Royal Privy Council
6	Dasho Karma Ura	President, Centre for Bhutan Studies and GNH Research
7	Dasho Pema Thinley	Former Vice Chancellor, Royal University of Bhutan
8	Dasho Sangay Wangchuk	Royal Privy Council, Thimphu
9	Dasho Sherub Gyaltshen	Secretary, Dzongkha Development Commission
10	Karma Tshiteem	Chair, Royal Civil Service Commission
11	Nidup Dorji	Vice Chancellor, Royal University of Bhutan
12	Tenzin Yonten	Director, Royal Thimphu College.
13	Khenpo Karma Phuntsho	Loden Foundation
14	Aum Lily Wangchuk	President, Druk Chirwang Tshogpa
15	Tenzin Lekphel & Dr.Tandin Dorji	Druk Nyamrup Tshogpa

10. Interview moderators

Sl. No.	Name	Designation	Agency
1.	Kaka	Education Monitoring Officer II	Education Monitoring and Support Services Division, DSE, MoE
2.	Rinzin Choden	Dy. Chief Research officer	Royal Education Council
3.	Tshering Dorji	Principal	Rinchen Higher secondary School, Thimphu
4.	Chencho Tshering	Principal	Yoezerling Higher Secondary School, Paro

11. Consultations in the Field by Supervisors and Education Review Officers

Sl. No.	Name	Designation	Dzongkhag/ Thromde / Dungkhag
1	Phub Tshering	Dzongdag	Punakha
2	Sonam Jigme	Dzongdag	Gasa
3	Sonam Wangdi	Dzongdag	Haa
4	Karma Drukpa	Dzongdag	Zhemgang
5	Lungten Norbu	Dzongdag	Tashigang
6	Sherab Tenzin	Dzongdag	Mongar
7	Dawala	Dzongdag	Sarbang
8	Tshering Wangdi	Director	Sherubtse College
9	Rabgay Tobden	Drungpa	Phuntsholing
10	Pasang Wangdi	Dzongrab	Samtse
11	Karma Jurmi	Drungpa	Dorokha
12	Namgay Dorji	Dzongrab	Tsirang
13	Therchung Chencho	Drungpa	Panbang

14	Dorji Pasang	Chief District Education Officer	Mongar
15	Lemo	Chief District Education Officer	Punakha
16	Dechen Lhendup	Sr. District Education Officer	Punakha
17	Tshewang Penjor	Dy. Chief District Education Officer	Wangdue
18	Karma Tshering	Sr. District Education Officer	Wangdue
19	Pema Wangchuk	Sr. District Education Officer	Wangdue
20	Karma Sonam Chopel	Chief District Education Officer	Samtse
21	Jigme Tenzin	Asst. District Education Officer	Dorokha
22	Lhama Tshering	Dy. Chief Thromde Education Officer	Phuntsholing
23	Sangay Chopel	Chief District Education Officer	Zhemgang
24	Karma Wangchuk	Sr. District Education Officer	Zhemgang
25	Sonam Tshering	Sr. District Education Officer	Zhemgang
26	Pema Kelden	Dy. Chief Thromde Education Officer	Gelephu
27	Chencho Tshering	Sr. District Education Officer	Sarpang
28	Pemba Gyaltshen	Sr. District Education Officer	Chukha
29	Tashi Namgyal	Principal	Rangjung HSS, Trashigang
30	Tshetim Dorji	Principal	Samtse HSS
31	Namgay Wangchuk	Principal	Chukha HSS

12. Blueprint Drafting Team

Sl. No.	Name	Designation	Agency
1	Phuntsho Wangdi	Project Manager	Education Review Office
2	Tshering Tenzing	Education Review Officer	Education Review Office
3	Geewanath Sharma	Education Review Officer	Education Review Office
4	Dochu	Education Review Officer	Education Review Office
5	Leki Phuntsho	Education Review Officer	Education Review Office
6	Sonam Wangdi	Education Review Officer	Education Review Office
7	Sangye Choden	Education Review Officer	Education Review Office
8	Tashi Lhamo	Education Review Officer	Education Review Office
9	Yuden	Chief Research Officer	Royal Education Council
10	Pedup Dukpa	Research Officer	Royal Education Council
11	Kinley Wangmo	Research Officer	Royal Education Council
12	Arjun K. Gurung	Education Monitoring Officer	BCSEA
13	Sonam Gyeltshen	Sr. ICT Officer	BCSEA
14	Sangay Tshering	NRP Coordinator (Graphics and layout)	DCRD
15	Satoko Yano	Education Program Specialist	UNESCO, Bangkok
16	Mark Manns	Research Officer	UNESCO, Bangkok
17	Shailendra Sigdel	Statistical Advisor	UNESCO, New Delhi

13. Blueprint Review Panel

Sl. No.	Name	Designation	Agency
1.	Karma Yeshey	Director General	Department of School Education, MoE
2.	Kinga Dakpa	Secretary	Bhutan Council for School Examination and Assessment
3.	Dr. Dorji Thinley	Director	Research and Industrial Linkages, Royal University of Bhutan
4.	Dr. Kezang Sherab	Dean of Research and Industrial Linkages	Paro College of Education, Royal University Bhutan
5	Lhundup Dukpa	Offtg. Director	Royal Education Council

14. Focused Group Discussion with Agencies and Organisations

Sl. No.	Agencies and Organisations
1	Bhutan Canada Foundation, Thimphu
2	Liaison Office of Denmark, Thimphu
3	Department of Youth and Sports, Ministry of Education
4	Department of Adult and Higher Education, Ministry of Education
5	Department of Curriculum, Research and Development, Ministry of Education
6	HELVETAS Swiss Inter Co-operation, Bhutan
7	Hon'ble Members of the National Council
8	Hon'ble Members of the Parliament
9	The Loden Foundation, Thimphu
10	National Commission for Women and Children, Thimphu
11	Paro College of Education, Royal University of Bhutan, Paro
12	Respect Educate Nurture and Empower Women (RENEW), Thimphu
13	Save the Children International-Bhutan
14	The Journalist Association of Bhutan
15	UNICEF Bhutan, Thimphu

Acronyms

AES	Annual Education Statistics
AS	Autonomous Schools
ASSL	Annual Status of Student Learning
B.Ed	Bachelor of Education
BBE	Bhutan Board of Examination
BCSE	Bhutan Certificate of Secondary Education
BCSEA	Bhutan Council for School Examinations and Assessment
BCSR	Bhutan Civil service Rules and Regulations
BHSEC	Bhutan Higher Secondary Education Certificate
CAPSD	Curriculum and Professional Support Division
CBA	Competency Based Assessment
CBIP	Cluster Based In-service Programme
CBM	Christian Blind Mission
CBT	Community Based Teachers
CE	Continuing Education
CFA	Continuous Formative Assessment
CLT	Cluster Lead Teacher
CoE	College of Education
CPD	Continuous Professional Development

DAHE	Department of Adult and Higher Education
DBIP	Dzongkhag Based In-service Programme
DCRD	Department of Curriculum and Research Division
DEO	Dzongkhag Education Officer
DPO	Disable People's Organisation
DSE	Department of School Education
DYS	Department of Youth and Sports
ECCD	Early Childhood Care and Development
EFA	Education for All
EMIS	Education Management Information System
EMSSD	Education Monitoring and Support Services Division
EPGI	Education Policy Guidelines and Instructions
ERO	Education Review Office
FGD	Focus Group Discussion
FYP	Five Year Plan
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission

HR	Human Resource
HRD	Human Resource Division
HSS	Higher Secondary School
ICT	Information and Communication Technology
INSET	In-Service Education of Teachers
LSS	Lower Secondary School
MLT	Master Lead Teacher
MoE	Ministry of Education
MoLHR	Ministry of Labour and Human Resources
MSS	Middle Secondary School
NAPE	New Approach to Primary Education
NBIP	National Based In-service Programme
NCT	National Contract Teachers
NEA	National Education Assessment
NEF	National Education Framework
NER	Net Enrolment Ratio
NFCED	Non-Formal and Continuing Education Division
NFE	Non-formal Education
NGO	Non-Government Organization
NPSEN	National Policy on Special Educational Needs
NSB	National Statistics Bureau

NTF	National Task Force
NWAB	National Woman's Association of Bhutan
OD	Organisational Development
OECD	Organisation for Economic Co-operation and Development
PCE	Paro College of Education
PD	Professional Development
PGDE	Postgraduate Diploma in Education
PHCB	Population and Housing Census of Bhutan
PIRLS	Performance in International Reading and Language
PISA	Programme for International Student Assessment
PLC	Professional Learning Community
PMS	Performance Management System
PP	Pre-Primary
PPD	Policy and Planning Division
PS	Primary School
PSD	Private School Division
RCSC	Royal Civil Service Commission
REC	Royal Education Council
RGoB	Royal Government of Bhutan
RUB	Royal University of Bhutan
SATS	Student Achievement Tracking System

SBIP	School Based In-service Programme
SDF	School Development Fund
SEN	Special Education Needs
SFP	School Feeding Programme
SLT	School Lead Teacher
SMB	School Management Board
STEM	Science, Technology, Engineering and Mathematics
TEO	Thromde Education Officer
THRP	Teacher Human Resource Policy
TIMSS	Trends in International Mathematics and Science Study
TNA	Teacher Needs Assessment
TTI	Teacher Training Institute
TTI	Technical Training Institute
TVE	Technical and Vocational Education
TVET	Technical Vocational Education and Training
UMSB	University of Medical Sciences of Bhutan
UNESCO	United Nations Educational Scientific and Cultural Organisation
VSDC	Vocational Skills Development Curriculum
WFP	World Food Programme

References

1. Barber, M., & Mourshed, M. (2007). How the world's best performing school system come out on top.
2. Bhutan Council for School Examination and Assessment. (2010). National Education Assessment 2010. Thimphu: Bhutan Council for School Examination and Assessment.
3. Bhutan Council for School Examination and Assessment. (2013). Cross verification of private schools on compliance on school affiliation with BCSEA. Thimphu: Bhutan Council for School Examination and Assessment.
4. Bhutan Council for School Examination and Assessment. (2013). National Education Assessment 2003. Thimphu: Bhutan Council for School Examination and Assessment.
5. Bhutan Council for School Examination and Assessment. (2013). Syllabus Coverage, Continuous Assessment Practice and Conduct of Science Practicals in Schools (A survey report). Thimphu: Bhutan Council for School Examination and Assessment.
6. Bhutan Council for School Examinations and Assessment. (2013). Pupil Performance Report 2013. Thimphu.
7. Bhutan Council for School Examinations and Assessment. (2014). Pupil Performance Report 2014. Thimphu: Bhutan Council for School Examinations and Assessment.
8. Deki, K. (2008). The Development and State of the art of adult learning and education. Thimphu: Department of Adult & Higher Education, Ministry of Education.
9. Department of Education. (2003). *Education Sector Strategy: Realising the Vision 2020*. Thimphu: Department of Education, Ministry of Health and Education, Bhutan.
10. Department of Employment. (2012). *Bhutan Labour Force Survey 2012*. Thimphu: Ministry of Labour and Human Resource.
11. Department of School Education. (2010). *School Performance Management System: Guide to School Performance Management Scorecards (The Whole School Approach)*. Thimphu: Ministry of Education,.
12. Department of Youth and Sports, M. o. E. (2010). *Bhutan National Youth Policy 2011*. Thimphu: Department of Youth and Sports, Ministry of Education.
13. Education Monitoring and Support Services Division. (2012). *Half Yearly Report on Consultative Meetings with Low Performing Schools*. Thimphu: Education Monitoring and Support Services Division.
14. Education Sector Review Commission. (2008). Education without Compromise. Thimphu: Education Sector Review Commission.
15. The Global Gender Gap Report 2014. (2014). http://www3.weforum.org/docs/GGGR14/GGGR_CompleteReport_2014.pdf

16. Gross National Happiness Commission. (2013). *Eleventh Five Year Plan (2013-2018) Vol-II*. Thimphu: Gross National Happiness Commission.
17. Gurung, A. K. (2012). *Vocationalization of Secondary Education in Bhutan*. Thimphu: Bhutan Council for School Examinations and Assessment.
18. Human Resource Division. (2012). *In-service Education of Teachers (INSET) in Bhutan: Master Plan*. Thimphu: Ministry of Bhutan.
19. I' Anson, N. (2008). *An impact assessment of the Non-Formal Education Programme in Bhutan*. Thimphu: Ministry of Education,.
20. Institute for Management Studies. (2014). *Impact of ECCD Center Program on School Readiness of Children: A Case Study*. Thimphu: Institute for Management Studies.
21. Kozma, R. (2009). *Transforming education: Assessing and teaching 21st century skills. The transition to computer-based assessment, 13*.
22. LaPrairie, M. (2014). *A Case Study of English-Medium Education in Bhutan*. (Degree of Doctor in Education), University of London.
23. Loeb, S., & Horng, E. (2010). *New Thinking About Instructional Leadership. Center for Education Policy Analysis, 92(3), 66-69*.
24. Ministry of Education. (2010). *Educating for GNH (Delegate Booklet)*
25. Ministry of Education. (2012). *National Policy on Special Educational Needs* Thimphu: Ministry of Education,.
26. Ministry of Education. (2013). *The Centenarian 100 years of Educating the Nation*. Thimphu: Ministry of Education,.
27. Ministry of Education. (2014). *National Education Policy (Draft)*. Thimphu: Ministry of Education.
28. Ministry of Education. (2014). *Teacher Human Resource Policy 2014*. Thimphu: Ministry of Education.
29. National Statistics Bureau. (2007). *Bhutan Poverty Analysis 2007*. Thimphu: National Statistics Bureau.
30. National Statistics Bureau. (2011). *Bhutan Multiple Indicator Survey*. Thimphu: National Statistics Bureau.
31. National Statistics Bureau. (2014). *Statistical Yearbook of Bhutan 2014*. Thimphu: National Statistics Bureau.
32. National Statistics Bureau, & Asian Development Bank. (2012). *Bhutan Living Standards Survey*. Thimphu: National Statistics Bureau & Bhutan and Asian Development Bank.

33. Ning, N. T., Kam, H. W., Sundara, R., Chin, Y. K., Hoe, L. N., & Thiruman, M. (2010). *Teacher Quality Enhancement Project: Policy Guidelines and Strategic Plan*. Thimphu: Royal Education Council, Singapore Cooperation Enterprise, and Educare co-operative limited.
34. OECD. (2012). *The High-level Principles on National Strategies for Financial Education*. Paris: Organisation for Economic Co-operation and Development.
35. OECD. (2012). *The Learning Environment and Organisation of Schools Education at a Glance 2012 OECD Indicators: OECD Indicators: OECD*.
36. Office of the Census Commissioner: Royal Government of Bhutan. (2005). *Results of Population & Housing Census of Bhutan 2005*.
37. Özdemira, N., Ayrala, M., Fındika, L. Y., Ünlüa, A., Özarslana, H., & Bozkurtb, E. (2013). *The Relationship between Students' Socioeconomic Status and Their Turkish Achievements. Social and Behavioral Sciences*.
38. Pendidikan, M. K. (2013). *Malaysia Education Blueprint 2013-2025: Preschool to Post-secondary Education*.
39. Planning Commission. (1999). *Bhutan 2020: A Vision for Peace, Prosperity and Happiness- Part I*. Thimphu: Planning Commission, Royal Government of Bhutan.
40. Policy and Planning Division. (2002). *Tracer Study: School to work Transition of Youth in Bhutan*. Thimphu: Policy and Planning Division, Ministry of Education.
41. Policy and Planning Division. (2003). *Education Policy Guidelines & Instructions*. Thimphu: Ministry of Education.
42. Policy and Planning Division. (2014). *Annual Education Statistics 2014*. Thimphu: Ministry of Education, Royal Government of Bhutan.
43. Policy and Planning Division. (2014). *National EFA Review Report- Year (2000-2015)*. Thimphu: Policy and Planning Division, Ministry of Education.
44. Psacharopoulos, G. (1995). *The Profitability of Investment in Education: Concepts and Methods Human Capital Development and Operations Policy Working Papers*. Washington DC: The World Bank.
45. Royal Civil Service Commission. (2014). *Organizational Diagonisis Report (Draft)*. Thimphu: Royal Civil Service Commission.
46. Royal Education Council. (2009). *Teacher Quality Enhancement Project (TQE) Part I: Teachers in Bhutan and Their Work Environment*. Thimphu: Royal Education Council.
47. Royal Education Council. (2011). *Bhutan Teacher Needs Assessment (class 5-8)*. Thimphu: Education Initiatives Pvt. Ltd.
48. Royal Education Council. (2012). *Bhutan's Teacher Needs Assessment (9 to 12)*. Education Initiatives Pvt. Ltd.

49. Royal Education Council. (2012). *National Education Framework: Shaping Bhutan's Future*. Thimphu: Royal Education Council.
50. Royal Education Council. (2013). *Teachers' Job Satisfaction in Bhutan*. Thimphu: Royal Education Council.
51. Royal Education Council, & Education Initiatives Pvt. Ltd. (2008). *Bhutan's Annual Status of Student Learning 2008*. Thimphu: Royal Education Council.
52. Royal Education Council, & Education Initiatives Pvt. Ltd. (2011). *Bhutan's Annual Status of Student Learning 2011*. Thimphu: Royal Education Council.
53. Royal Education Council, & Educational Initiatives Pvt. Ltd. (2010). *Bhutan's Annual Status of Student Learning 2010: Educational Initiatives Pvt. Ltd.*
54. Royal Education Council, & iDiscoveri Centre for Education and Enterprise, I. (2009). *The Quality of school education in Bhutan: realities and opportunities*. Thimphu: Royal Education Council.
55. Royal Education Council, & Mindful Development Consultants Limited. (2009). *Teacher Education in Bhutan: Highlights, Challenges and Opportunities*. Thimphu.
56. Royal Government of Bhutan. (2013). *Millennium Development Goals Report: Royal Government of Bhutan*.
57. Royal government of Bhutan. (March 2013). *The Fifth Annual Report of the Prime Minister to the Tenth Session of the First Parliament on the State of the Nation*. Thimphu: Royal Government of Bhutan.
58. Royal Government of Bhutan, & UN in Bhutan. (2013). *Post- 2015 Development Agenda: National Consultations Report The Bhutanese Voice. The Future We Want for All: Well-being and Happiness*. Thimphu.
59. Royal University of Bhutan. (2013). *Annual Report 2013*. Thimphu: Royal University of Bhutan.
60. Schleicher, A. (2014). *Equity, Excellence and Inclusiveness in Education Background report for the 2014 International Summit on the Teaching Profession* Retrieved from http://www.oecd-ilibrary.org/education/equity-excellence-and-inclusiveness-in-education_9789264214033-en
61. Taylor, L. M. (2011). *The Importance of School Culture in the Advancement of 21st Century Learning Environments: A Qualitative Study*. (Doctor of Education), West Virginia University, West Virginia Retrieved from http://www.theedventuregroup.org/documents/Taylor_Lydotta_dissertation.pdf
62. The World Health Organization. *The Physical School Environment: An Essential Component of a Health-Promoting School. INFORMATION SERIES ON SCHOOL HEALTH*. http://www.who.int/school_youth_health/media/en/physical_sch_environment_v2.pdf

63. True, J., Niner, S., Parashar, S., & George, N. (2012). 2012 Women's Political Participation Report Asia-Pacific. *SSRC conflict prevention and peace forum*. <http://artsonline.monash.edu.au/thebordercrossingobservatory/files/2013/02/UNDPA-Women%E2%80%99s-Political-Participation-in-Asia-and-the-Pacific.pdf>
64. UNESCO-IBE. (2014). Training Tool for Curriculum Development: A Resource Pack. 2014, from http://www.ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/TTCDhome.html
65. UNESCO. (2014). Education For All Global Monitoring Report *TEACHING AND LEARNING: Achieving quality for all*. Paris: UNESCO.
66. UNICEF. (2010). Basic education and gender equality. *Child-friendly schools*. Retrieved 11 November, 2014, from http://www.unicef.org/education/index_focus_schools.html

THE ENVISAGED IMPACT OF THE BHUTAN EDUCATION BLUEPRINT 2014-2024

Students	Teachers	Principals
<ul style="list-style-type: none"> • Students irrespective of their backgrounds have the best possible start in life and are ready for school • Students regardless of locations have access to quality education • Students have opportunity to study in an intellectually stimulating and safe environment that respects diversity • Students have the following attributes: <ul style="list-style-type: none"> » Knowledge and understanding » Intellectual competence » Communicative competence » Enduring habits of lifelong learning » Family, community and national values » Spirituality and character » Physical wellbeing » Leadership competence » World-readiness 	<ul style="list-style-type: none"> • Teachers are highly respected • Teachers are supported to develop professional knowledge, skills, and values • Teachers have exciting career development opportunities • Teachers experience better working conditions • Teachers experience effective mentoring and coaching • Teachers are empowered to ensure effective delivery • Teachers are recruited from top graduates • Teachers experience better preparation in the Colleges of Education 	<ul style="list-style-type: none"> • Principals are high performers and recognized • Principals receive support and resources to make the schools a high performing school • Principals receive better induction and training to develop leadership skills • Principals are better instructional leaders and act as change agents

DEOs/TEOs	Ministry	Parents
<ul style="list-style-type: none"> • DEOs/TEOs have clearly defined roles and responsibilities • DEOs/TEOs receive relevant training to become mentors and coaches to principals and teachers • DEOs/TEOs are the fully responsible and accountable to ensure high performance in the Dzongkhags 	<ul style="list-style-type: none"> • The Ministry is re-structured to provide efficient support services • Ministry officials work in a collaboration with different stakeholders • Ministry officials receive greater operational flexibility and accountability 	<ul style="list-style-type: none"> • Parents have a better understanding of how their children are developing and how they can help them improve • Parent would have bigger role in their children's education • Parents have more opportunities to provide input into their school's improvement strategies.



Bhutan Education Blueprint Drafting Team

