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Principles and general objectives of education

As articulated in the *Bhutan 2020* (Planning Commission, 1999), the vision is to provide a quality education, the achievement of which must meet the following objectives: ensure the realization of the innate potential of each and every child; instill an awareness of the nation's unique cultural heritage, and values, both traditional and universal; prepare young people for the world of work, instilling in them the dignity of labour; and create an awareness of the potential and importance of agriculture as an occupation. Sometimes the goal of education is referred to as the provision of a wholesome education. Wholesome education should prepare students to be responsible, mature, and productive citizens who will uphold the pride of the nation and their parents. Therefore, education is considered as one of the fundamental means required to achieve *Gross National Happiness* (GNH), which is the framework for the overall development of Bhutan in conformity with the culture, institutions and spiritual values of the country. (MOE, 2008).

The concept of GNH acknowledges that spiritual and emotional development is as important as material accumulation and physical comfort. Within the framework of GNH, development is seen as a process that seeks to promote happiness rather than material progress alone. It recognizes that economic growth is a precondition for safeguarding the country's independence, enhancing people's self-reliance, improving their standard of living and increasing opportunities and choices. It also implies that true abiding happiness comes from serving others, living in harmony with nature and realizing one's innate wisdom and potential to the fullest. Therefore, a system of whole education will focus on: a deep and genuine understanding of and care and respect for nature, for others, and for Bhutan's profound and ancient culture; the critical capacity to understand and see reality clearly and to see through deception; and the ability to manifest these qualities in action and behaviour in order to benefit Bhutan and the world, to develop the economy in a sustainable and socially responsible way, and to be good citizens who can act effectively to improve wellbeing. (MOE, 2010).

The role of education is to equip the young generation with the appropriate knowledge, skills, attitudes and values that are required to formulate and implement new ways of achieving the goals of GNH, in the context of the dynamics of local, national and global realities and developments. Being a powerful instrument of human resource development, education plays a vital role in the process of social transformation and the achievement of national goals and priorities. The emerging role of education, in the context of social, economic, political, cultural and environmental goals in the local, national and global perspectives, include the following:

- Creating individuals capable of ensuring a harmonious balance between material well-being and the spiritual, emotional and cultural needs of both the individual and society at large.

- Creating awareness and commitment on the part of learners to protect, conserve and improve the environment and safeguard the biodiversity of the country.
- Preserving the nation's cultural heritage and its continued value as a rich source of social philosophy. Education must bring about a fine synthesis between change-oriented technologies and the country's continuity of cultural tradition, thus enabling people to preserve their identity.
- Promoting good governance by making available qualified personnel, who demonstrate accountability, transparency and commitment to the principles of morality in government and of ethical behaviour in public affairs.
- Ensuring that the citizens develop virtues of peace, fostering tolerance and respect for diversity.
- Equipping people with the knowledge, skills, values and attitudes that are required to promote a distinctive Bhutanese identity, maintain unity and harmony, and ensure political stability.
- Enable individuals to contribute to the building of a vibrant democracy and the overall wellbeing of society. It should provide opportunities for individuals and enhance their capacity to participate in decision-making processes at the household, community and national levels.
- Strengthen the strong tradition of self-reliance, self-sufficiency, self-help and organization and enhance the nation's research and development capacity.

Bhutan envisions a system of whole education that will nurture and encourage its citizens to be mindful, reflective, creative, skilful, successful, confident, active and informed, capable of contributing effectively to the realization of GNH and the values therein, and building a peaceful, democratic, sovereign, secure, stable and self-reliant Bhutan, full of creativity and vitality. (*Ibid.*).

Laws and other basic regulations concerning education

Though the country has no education act, the government has strong commitment to pursue universal basic education. More importantly, education is considered as one of the fundamental needs required to achieve Gross National Happiness, e.g. the framework for the overall development of Bhutan.

Article 9 of the new **Constitution** of 2008 stipulated that the State shall endeavor to provide education for the purpose of improving and increasing knowledge, values and skills of the entire population with education being directed towards the full development of the human personality. Article 16 further specifies that the State shall provide free education to all children of school going age to tenth standard and ensure that technical and professional education is made generally available and that higher education is equally accessible to all on basis of merit. The government provides free tuition, textbooks, sports equipment, meals and boarding, and free stationery to the rural schools. However, there are nominal fees such as fees charged for every child enrolling in the pre-primary year. Parents are also required to contribute annually to the school development fund. (MOE, October 2008).

The **Local Government Act** of 2009, which repealed a similar Act approved in 2007, has been enacted by the National Assembly taking into account that the Constitution provides for direct participation of the people in the development and management of their own social, economic and environmental wellbeing through decentralization and devolution of power and authority. Article 3 stipulates that there shall be local governments in each of the twenty *Dzongkhags* (districts). Article 4 specifies that local governments shall comprise of *Dzongkhag Tshogdu* (District Council), *Gewog* (block, group of villages; there were 205 *Gewogs* in 2010) *Tshogde*, and *Thromde* (municipality) *Tshogde*. Each *Dzongkhag* shall be divided into several *Gewogs* (block/county). Larger *Dzongkhags* may be divided into *Dungkhags* (sub-districts) which shall comprise of a number of *Gewogs*. A *Gewog* shall be made up of several *Chiwogs* (electoral precincts). A *Chiwog* may comprise of several villages.

Administration and management of the education system

The responsibility for the administration of education in Bhutan is shared amongst the Ministry of Education, the Ministry of Labour and Human Resources, the Royal University of Bhutan (established in 2003), the Districts (*Dzongkhags*) and the Blocks/Counties (*Gewogs*). Monastic education is the responsibility of the central monastic body and privately-managed independent monasteries.

The **Ministry of Education** (MOE) is responsible for policy planning, curriculum development and administration of basic (primary to middle secondary), higher secondary, non-formal and continuing Education. It is also responsible for tertiary level international scholarships, and the design and implementation of the higher education policy. This includes liaising with institutions at that level, such as the RUB. The **District** (*Dzongkhag*) administrations are entrusted with a range of responsibilities in the education sector, both formal and non formal education, school construction and maintenance, supply of teaching learning materials, deployment of teachers within the District and implementation of national policies. These responsibilities are carried out by *Dzongkhag* Education Officers (DEOs), and Assistant DEOs. They report to the *Dzongdag* (District Governor) and to the Ministry of Education.

The Department of Human Resources (previously the National Technical Training Authority) under the **Ministry of Labour and Human Resources** (MOLHR) is responsible for vocational training after grade 10 (in schools, vocational work orientation is under the supervision of the MOE's Department of Youth and Sports). The **Royal University of Bhutan** (RUB) is responsible for planning, curriculum development and administration of the affiliated tertiary level institutions responsible for the provision of public education after grade 12. (MOE-PPD, 2010).

The Ministry of Education (formerly the Ministry of Health and Education) stands at the head of the educational administration. The Minister is assisted by a Secretary. The Secretariat is organized into the Policy and Planning Division, which also includes the IT-unit, the Administrative and Finance Division, and the Human Resource Division (HRD). The Bhutan Board of Examinations (BBE) and the National Commission for UNESCO are also a part of the Secretariat, and are directly accountable to the Secretary. The Internal Audit Unit (IA) headed by a Chief Internal Auditor reports directly to the Minister.



The **Bhutan Board of Examinations** is responsible for organizing and monitoring national examinations, i.e. the All Bhutan Primary Certificate Examination at the end of grade 6, the examinations at the end of the basic education programme (grade 8), and at the end of grade 10. The latter examination is conducted jointly with the Council for Indian School Certificate Examinations in Delhi.

There MOE is organized into three Departments: the Department of School Education (DSE), the Department of Adult and Higher Education (DAHE), and the Department of Youth and Sports (DYS). Each Department is headed by a Director, who is responsible for the implementation of the plans and policies of the department. Each Director is supported by Joint Directors who head the various divisions under the department.

The Department of School Education is organized into Divisions as follows: Curriculum and Professional Services; Education Monitoring and Support Service; Programme Division; School Liaison and Coordination Unit; and School Planning and Building. The Department of Adult and Higher Education is organized into the Tertiary Education Division, Scholarship Division and Non-Formal and Continuing Education Division. The Department of Youth and Sports is organized into the Counselling Division, the Youth Centre, the Education Media Division, the Scouts and Culture Division, and the Games and Sports Division. (MOE, 2008).

In 2010, the **Curriculum and Professional Services** Division was upgraded to the status of Department. The mandate and functions of the Department are as follows: improving the quality and relevance of curriculum and conduct timely review of curriculum materials based on the needs; carrying out curricular and professional researches; developing curriculum as per requirements (initiate all curriculum development works like textbooks, syllabuses, frameworks, teacher guides, and support materials); providing curricular and support materials to all schools; monitoring and support mechanism for effective curriculum implementation (institutionalize regional, cluster and school level monitoring and support mechanism, build professional capacities of teachers, senior teachers and master teachers, carry out focused school visits); providing professional support to pre-service and in-service teachers for effective curriculum implementation; and facilitating improvement of assessment and evaluation system. The Curriculum and Professional Services Department (CAPSD) is organized into four main Divisions: Primary Curriculum, Secondary Curriculum, Programme and Support Services, and Publication and Instructional Media. The CAPSD Board, chaired by the Minister of Education, was instituted to provide direction, guidance and support to the Department. The Board shall also provide the MOE a broad-based forum in the decision making processes related to school curriculum policies.

The central level is responsible for the content and standards of all educational levels within the general education system, and for providing comprehensive supervision and guidance at the primary and secondary levels. It is also charged with improving the designs of schools, setting up standards for physical facilities, distributing essential supplies such as stationery, textbooks, sports equipment and other teaching materials to the schools, changing the school curriculum and organization, and providing support to the 20 *Dzongkhags* (districts) in developing their schooling infrastructure. Teacher recruitment, pre-service and in-service teacher



training in selected areas, initial deployment, inter-*Dzongkhag* transfers, promotions and termination of services are also responsibilities of the central division. In addition, the central level coordinates resource mobilization and distribution with the Ministry of Finance and reviews and approves plans of the *Dzongkhags*. It also provides assistance to the *Dzongkhags* and institutes in implementing national policies and plans.

The tradition of community contribution existed well before the advent of modernization when extensive use of community labour was used for building and maintaining *dzongs*, religious edifices and service facilities. The government has also made concerted efforts to shift the focus of decision-making from a centralized system to a more active community participation system. As a result, more than 260 schools have been constructed by communities on their own initiative and mainly using local resources. In addition, more parents are now involved in the management of schools.

To facilitate community participation, every school has a **School Management Board**. The members of the Board consist of the *gup* (head of *Gewog*), the *chimi* (people's representative in the National Assembly), the headmaster, representatives of parents and members of the Block Development Committee (*Gewog Yargye Tshochug*—GYT). The Board is responsible for all aspects of management of the school, including mobilizing community participation.

The concept of community participation has also extended to the non-formal education (NFE) programme. All NFE centres are managed by the NFE committee consisting of the school head teacher and village elders under the chairmanship of the *gup*, who is directly responsible for planning and management of literacy programmes in the community. In 2010, there were over 690 NFE centres in the country.

Bhutan's five-year planning processes are initiated with policy directives and guidelines provided by the **Planning Commission**. The guidelines are the result of a situation analysis carried out by the government including the line ministries. Policy directives filter to the grass-root level through the District Development Committee (*Dzongkhag Yargye Tshochug*—DYT) and the GYT, which constitute two important development fora for the people. These fora also discuss activities proposed by communities and local authorities. Therefore, the establishment of a school or a NFE centre in a village has to be formally approved at the *Gewog* (block) level before it is submitted for approval at the *Dzongkhag* level, where the authority has to prioritize the programmes and budget the proposals for further submission to the Division of Education or the Planning Commission.

The Tertiary Education Policy 2010 envisages the establishment of the Tertiary Education Board and of the Bhutan Accreditation Council. The Council shall be the central agency for setting entry criteria, granting the authority to award degrees, and monitoring standards for tertiary education institutions. The Council shall also establish the Bhutan Qualifications Framework, which shall be the basis for comparing standards, transferring credits, and recognizing tertiary education degrees. The Board shall assist the Ministry of Education through the Department of Adult and Higher Education, to: review and set goals for tertiary education and develop strategies to meet the goals; validate and approve all plans and proposals for



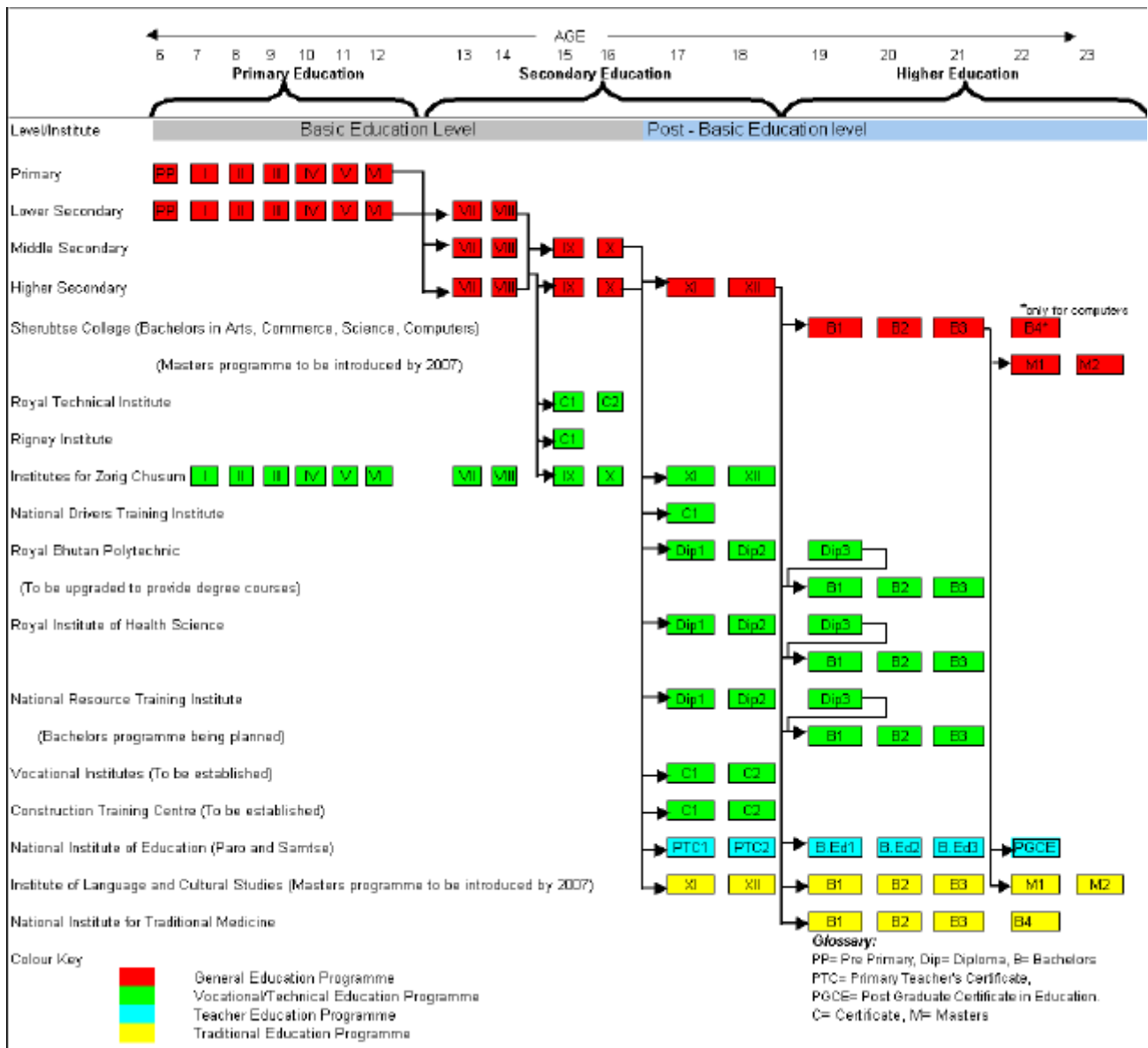
allocations of funds; and approve the establishment of institutions based on the recommendation of the Council. A Tertiary Education Act shall set out criteria for the establishment of universities, colleges, and institutes. (MOE-TED, 2010).

Before the advent of the modern education system, Bhutan had a well established monastic education system dating back to the Eighth century. These schools still play an important role in the Kingdom's social and religious life and are instrumental in giving access to an alternative form of education. There are two types of monastic school—those that are government-supported and come under the *Je Khenpo* (the spiritual head of the *Dratshang Lhentshog*), and the private monastic schools that are established and managed by other religious leaders. *Shedras*, the monastic colleges, teach Buddhist studies and philosophy, astrology, languages (Choekay, Dzongkha and Sanskrit), religious practices, etc. These colleges award qualifications that are equivalent to bachelor's and master's degrees. The completion of studies in *Shedras* usually takes up to nine years. Graduates from *Shedras* are able to serve as national language (Dzongkha) teachers in schools and are increasingly finding employment within the government. *Dratsangs*, the monastic schools, are usually housed in the *Dzongs*. The learners are normally monks. The curriculum focuses on religious practices, rituals and prayers. They learn about reading prayers, using religious objects, and preparing *tormas* (cake offerings). After completing their preliminary schooling at different monasteries, novice monks may go to Buddhist colleges to pursue higher studies in science and Buddhist philosophy. They also go to *Dratsangs* to gain exposure to ritualistic practices. The monks in the *Dratsangs* also serve the local community by visiting homes to perform prayers and recitations. *Gomdeys* are the meditative centres where the meditation practitioners spend time to reflect upon the knowledge and wisdom gained during their schooling. It is usually the *Gomchens* (literally meaning 'great meditator'), the lay monk practitioners who are educated in Buddhist sciences and practices, but are not ordained. The *Gomdeys* are usually run by local religious heads often funded by the communities and private individuals. (MOE, 2010).

In 1990, it was estimated that at least 15,000 monks and *gomchens* were enrolled in monastic schools. Less well-organized institutions but nevertheless covering a wider expanse of the country are the *Goenpas* (village temples) which also may house a respected Lama and his lay followers who study to become lay-practitioners of religion. The record of the Special Commission for Cultural Affairs indicates that there are about 2,000 monasteries and temples spread throughout the country. In 2010, there were 207 monastic schools under the central monastic body. The total enrolment in these monastic schools and three nunneries was 7,363 learners (of whom 7,240 were males). In 2004, there were 5,149 learners enrolled in monasteries not administered by the central body. (MOE-PPD, 2010).

Structure and organization of the education system

Bhutan: structure of the education system (2009)



Source: Ministry of Education.

Pre-school education

Pre-primary education is currently a formal, one-year programme offered in schools and it is considered as being part of primary education. Children are admitted into the pre-primary class (PP) at the age of 6. Early childhood care and development (ECCD) programmes remain limited to a few centres providing health and nutrition services. Some private nursery schools have been established in the larger urban centres. The



National Education Framework 2010 envisages the implementation of an integrated KG-12 school system organized into key stages. Key stage 1 will include two years of pre-primary education for 4- and 5-year-olds (kindergarten 1 and 2) and the first two grades of primary education. It is expected that the future early childhood care and development (ECCD) programme will comprise childcare (health, hygiene and nutrition) services for children aged 2-4 as well as two years of pre-primary education. (MOE, 2010).

Primary education

Primary education covers the pre-primary class (PP) and grades 1 to 6; the admission age is 6. It is offered in community, primary and combined primary and secondary schools. At the end of grade 6, pupils used to sit the All Bhutan Grade 6 examination (previously the Primary School Certificate examination) administered by the Bhutan Board of Examinations (BBE). In 1999, the responsibility of conducting the examination was transferred to the schools. On the basis of the National Education Framework 2010, under the new school system grades 3 to 6 will be considered as key stage 2.

Secondary education

Secondary education comprises two years (grades 7 and 8) of lower secondary school (previously called junior high school), two years of middle secondary (grades 9 and 10), and two years of higher secondary education (grades 11 and 12, formerly called junior college). At the end of grade 8 students used to sit the All Bhutan Grade 8 examination (previously the Lower Secondary School Certificate examination) administered by the BBE; since 2006, the responsibility of conducting the examination was transferred to the schools. At the end of grade 10 (e.g. the final year of basic education) students sit the Bhutan Certificate of Secondary Education (BCSE) examination conducted by the BBE. Admission to grade 11 in government-funded schools depends on the student's performance in this examination. Students who are not selected can attend private higher secondary schools at their own expense, or can join vocational courses that are state-funded or organized by private firms. While grades 9 and 10 are provided in all high schools, grades 11 and 12 (also known as pre-university classes or higher secondary and conceived as post-basic education) are provided only in selected high schools. Higher secondary education is organized into three streams: arts, commerce and science. At the end of grade 12 students sit the Bhutan Higher Secondary Education Certificate (BHSEC) examination administered by the BBE. Vocational education and training programmes are currently offered only in Vocational Training Institutes (VTIs), which enrol mainly grade 10 graduates. In 2010 there were eight VTIs. The duration of vocational training varies, depending upon the course. Programmes offered include: four- to six-year training courses in traditional arts and crafts provided to early school dropouts; a three-year certificate programme in various engineering disciplines; a six-month driving course for grade 8 leavers; a three-year engineering diploma programme for grade 10 graduates; a three-year agriculture training course for grade 10 graduates; health and nursing personnel training and secretarial and computer programming courses for grade 8, 10 and 12 leavers. On the basis of the National Education Framework 2010, under the new school system grades 7 to 10 will be considered as



key stage 3, completing the basic education programme (grades 1 to 10). (MOE, 2010).

Higher education

Tertiary and higher education is mainly provided by the Royal University of Bhutan (RUB), which comprised ten colleges and institutes in 2010, including the Jigme Namgyel Polytechnic, the National Institute of Traditional Medicine, the Paro College of Education, and the Samtse College of Education. Admission to the RUB is based on the BHSEC examination results. Professional and general programmes are offered full-time, part-time and through distance learning provision. Diploma programmes normally last five semesters to three years. Most programmes leading to the award of a bachelor's degree take four years to complete (technology, engineering, education and business administration; five years in the case of the Bachelor of Medicine in traditional medicine). The Samtse College of Education also offers a one-year postgraduate certificate in education (PGCE) programme for B.Ed. holders.

The school year consists of 180 days of instruction. The academic year is divided into two semesters.

The educational process

The quality of primary education has always been a main concern. The government has adopted initiatives addressed at making education more meaningful and improving students' learning achievement. One of them is the New Approach to Primary Education (NAPE), which employs a new curriculum based on activity methods and which is rooted in the local environment and culture. This method was universalized during the 1990s.

The period 1990–1999 saw major efforts to foster changes within the formal education curriculum by introducing basic skills development and youth programmes. While the school curriculum includes basic knowledge on health, nutrition and sanitation, a major effort has been undertaken to improve personal hygiene and health of the students. Since 1998, a comprehensive school health programme has been launched. Population education, environment and conservation have also received a lot of attention. Songs, dances and music now form important part of the school's co-curricular activities. Taking into account that over 80% of the people live in rural areas, agriculture education has always been stressed as an important component of the curriculum. In addition, the government is paying more attention to improving sports and recreation facilities in the schools. Organized physical activities such as games and sports are seen as being important to develop physical, social and mental skills in young people and improve their physical health.

A greater focus is being provided to the reading programme and linking this to the development of language skills among students. Continuous assessment is being introduced as part of the teaching and learning process in schools through series of in-service workshops for teachers and also is integrated into the pre-service teacher training. Piloting of resource centers for disseminating new ideas as well as for accessing education resources for curriculum implementation has been successfully



completed and is being expanded. Environment and Value Education, counseling and youth related issues such as substance abuse and reproductive health are being integrated within the formal school curriculum and as extra-curricular activities. A major policy shift in recent times is to make secondary education more relevant by introducing a basic skills training programme in the form of clubs and introducing career counselling to orient youth to the world of work. With a purpose to produce citizens with spiritual and social values, the concept of all round and wholesome education has been an established philosophy of education in Bhutan.

The National Curriculum (version 2010) draws its inspiration from the national vision, e.g. “Bhutan aspires to be a self-reliant, environmentally sustainable, democratically governed, and culturally vibrant nation whose citizens are highly skilled, capable of responding to the emerging global challenges and contributing to equitable and sustainable socio-economic development and wellbeing of the community in which they live and the country at large.” This vision sees Gross National Happiness (GNH) as the overarching goal that will guide the country to achieving its development landmarks. The National Curriculum provides a comprehensive framework for schools, encompassing all the learning standards and the learning experiences planned for students at each level from kindergarten to grade 10. It endeavours to inculcate language and mathematical abilities, communication skills, a scientific temper and a far-reaching respect for the environment. Spiritual and moral values that appreciate diverse cultures, tolerate differences and strike the right balance between change and continuity are incorporated with the learning experiences suggested at each grade level. Additionally, the curriculum lays stress on the competencies necessary for self directed, independent and lifelong learning. Healthy and active living skills, movement competence and visual and performing arts form an integral part of the curriculum for all round development of the individual. Finally, the curriculum strengthens students’ ability to obtain, accumulate and process information in a variety of ways and reach logical conclusions. (MOE, 2010).

The curriculum is organized around concepts, skills, values, attitudes and action. Each of these elements is reflected in the scope and sequence of what the children should learn in each of the subject domains, that is, the essential learning areas. At each grade level, the curriculum ensures that learning is developmentally appropriate, relevant and meaningful, intellectually and emotionally, engaging and adequately challenging for the students. The development of the essential capabilities of the learners, as outlined in Bhutan’s vision, is promoted and supported by the National Curriculum. These capabilities include: literacy, numeracy, information and communication technology (ICT), thinking, creativity, self-management, teamwork, intercultural understanding, ethical behaviour, social competence, emotional intelligence, spirituality, and physical fitness. By providing structure, support and direction to young people’s learning, education will enable them to develop the following capacities: mindful; caring; reflective; disciplined; active and informed; knowledgeable; creative; industrious; communicative; skilful and productive; successful learner; and confident individual. The essential learning areas (ELAs) are: languages; mathematics; social science; science; health and physical education; visual arts; performing arts; and ICT. At the school level, these ELAs are translated into subjects, or strands, with targeted units of study, organized according to the grade level at which they are taught. The function of the ELAs is twofold: to provide a broad-based education, and to prepare students for specialization at the higher



secondary and tertiary stages, when students have a choice of multiple pathways to pursue. Each ELA is broken into strands, stating its defining components. These strands run through the kindergarten to year 10 of basic education. In the last two years of higher secondary, a wider range of strands gives the students an opportunity for more specialized learning.

The National Curriculum recommends learning standards to be achieved for each strand at each grade level of the KG-10 learning continuum, which is divided into three key stages, e.g. kindergarten 1 to grade 2; grades 3 to 6; and grades 7 to 10. Learning standards encompass knowledge, skills and attributes that are content-based, performance-based or both. They are founded on the premise that all students are capable of learning successfully and of achieving high levels. Learning standards are a summary description of what it is that students should know and/or be able to do within a strand at a particular grade level. These primarily serve to organize a subject domain or strand under central categories through a manageable number of generally stated goals for student learning. Within the learning standards for each strand are the performance standards that specify the demonstration of how well the information or skill has been acquired. They describe the specific expectations or the level of student performance, with respect to the knowledge or skill stated. Learning experiences are examples of activities or exercises which show teachers how performance standards could be transacted in the teaching and learning process. (*Ibid.*).

Concerning languages, one of the main aims of the bilingual curriculum programme is to achieve proficiency in both languages (Dzongkha and English); therefore, it is proposed that core subjects be taught in both languages. From grade 4 onwards, Dzongkha and English continue as dual languages of learning but the use of Dzongkha as the language of instruction will be replaced by English. For second language Dzongkha learners, the emphasis in kindergarten will be to link it with the home language by making the children aware of the structural and cultural similarities across languages and by a focused development of bilingual competence. In the early primary stages, science is studied, along with social science, through the broader learning area of Environmental Studies (EVS). The students learn to appreciate the living and non-living environment around them and develop an awareness and curiosity of the same. At key stage 1, EVS is an integration of the following areas: inquiry skills; living things; materials and properties; physical processes; history; civics; and geography. From grade 3, science and social sciences are taught as separate learning areas; from grade 3, the learning area of 'social sciences' is organized into the strands of inquiry skills, history, civics, geography, and economics. Health and physical education is organized into the strands of active living, movement competence including physical exercises, healthy living, and living skills. Visual arts include drawing and painting, clay and pottery, and mixed media. Performing arts include music, drama and dance. The study of ICT is twofold: as a discipline in itself and as a tool for the study of other subjects. ELAs may be studied separately or in a connected way. The connected approach allows for better conceptual understanding because the student examines the same phenomenon from a variety of perspectives, giving the student a multi-dimensional view. The National Curriculum recognizes the importance of a connected approach in planning and transacting the learning standards of each of the strands of the ELAs.



The mandatory cross-curricular study at each grade level across the curriculum is a new dimension in the National Curriculum and will form the core thinking in the school's operations, activities and organization. Schools select themes that are appropriate to the school's philosophy, the taught curriculum and the school location and type. When planning the school calendar, the themes are incorporated in the academic plan and the subject teachers create lesson plans, activities and learning experiences around the themes. A separate time in the weekly schedule of a school is set aside for students to develop work and material on cross-curricular themes identified for each grade level. Suggested broad themes for cross-curricular study in them, are: health and safety (health education; health literacy; consumer education; safety and disaster management; public health); citizenship (culture and religion; indigenous knowledge and culture for a sustainable future; citizenship and civic literacy; consumer rights and obligations); sustainability (women and sustainable development; sustainable agriculture; sustainable tourism; sustainable communities; resource consumption); global awareness (understanding world hunger; population and development; climate change; desertification; freshwater depletion); entrepreneurship (financial, economic, business and entrepreneurial literacy; marketing; productivity); and media literacy (print; broadcasting; right to information; ethics and journalism; advertising). Through interdisciplinary links and cross-curricular study, the students draw on different approaches and disciplines to acquire knowledge, gain motivation for self-learning and develop a deeper and more long-lasting understanding of concepts that they can apply in real-life situations. In Bhutanese schools, spiritual or values education, based on Buddhist philosophy, has always been part of the school curriculum. As a way of life, Buddhism aims to teach people how to grow in maturity and wisdom so that they may understand themselves better and learn more about the world in which they live. Students will develop attitudes towards life that will improve their relationships with family, friends and the people in our daily lives. Students will also learn practices to develop their minds and will practice meditation, which must be viewed not as a form of prayer, but as a form of inner training in which we cultivate new ways of being and positive mental habits. (*Ibid.*).

Assessment is primarily concerned with providing guidance and feedback to the learner. Every school's assessment and evaluation programme should have the following components: formative, summative and diagnostic aspects in assessment and evaluation; continuous formative assessment and regular cycles of summative periodic tests/exams in age-appropriate ways; continuous and comprehensive assessment from kindergarten to grade 6 should be designed with no formal end-of-the-year examinations. These examinations will be introduced from grade 7 alongside year-long continuous assessment; criterion-referenced assessment will be used to check the level of standards achieved; learning assessment procedures will assess the extent to which the learning standards are attained by pupils, including assessment of critical thinking and ability to apply knowledge and skills to solve problems; benchmarking may be done with international assessment standards, to help set higher learning targets to continually raise standards; monitoring of the learning achievement of students in a sample group of schools will be done through external assessment every 3–4 years, to monitor and raise the quality of learning and ensure international standards of learning and assessment. (*Ibid.*).



Pre-primary education

At the beginning of the 1990s, the dimension of early childhood care and development (ECCD) was not viewed as a serious area of concern. Firstly, primary education incorporates one year of pre-primary education, which provides an opportunity for all children to prepare for the formal education programme. Secondly, it is generally accepted that the Bhutanese culture provides a high level of interaction between children, parents and other family members in the child's early formative years. In addition to this, the health sector has been promoting mother and childcare in order to achieve a reduction in infant and child mortality rates. Therefore, no specific targets or goals were set for this dimension.

ECCD programmes in Bhutan remain limited to a few centres providing health and nutrition services. There is a lack of planned integrated services that are required at this stage. However, parents are beginning to understand and accept the importance of early childhood growth requirements and of providing a caring and stimulating environment for young children. While a formal policy on ECCD is still being developed, there have been some private sector ECCD initiatives through the establishment of nursery schools in the larger urban centres. Several issues exist concerning day-care programmes, including staff training, the state of the centres' physical environment, including the availability of appropriate play and educational equipment; and the clarity of curriculum goals. Some continuing barriers to on-time pre-primary (PP) enrolment may be the family need for children to help at home and also the distance between home and school. This barrier has been reduced with the building of more community primary schools. An additional challenge in urban areas for schools is that they are unable to handle the pressure of PP admissions due to underage admissions as well; in many cases, the classrooms are extremely overcrowded, with 40 or more children per class. (MOE, 2010).

As mentioned, the National Education Framework 2010 envisages the implementation of an integrated KG-12 school system organized into key stages. Key stage 1 will include two years of pre-primary education for 4- and 5-year-olds (kindergarten 1 and 2) and the first two grades of primary education. It is expected that the future ECCD programme will comprise childcare (health, hygiene and nutrition) services for children aged 2-4 and two years of pre-primary education.

The foundational period of key stage 1 is a significant and critical period of growth for children. The focus needs to be on providing: a high quality programme that stimulates the different domains of development; a comprehensive package that includes nutrition, health and education for all children; readiness for success in future learning; schools and different centres as venues for community activities and to facilitate community connectedness; and programmes that are designed to seek the active participation of families. In the early years the organizing principle of the curriculum is the physical environment of the programme. The caregiver/teacher creates a warm, inviting environment, ensures that children are safe, and follows practices that promote their physical and mental health and learning. Early stimulation for children will be provided in community centres, outreach health centres, home-based centres, crèches and through other means. This will include health, hygiene and nutrition services, early stimulation for children, and educating parents and care givers to support the growth and development of children. Learning experiences for children



at this stage will focus on their disposition to learn, encouraging their exploratory drive and progressing towards milestones. There is an emphasis on two years of pre-primary experience before starting formal schooling. The role of pre-primary will be to nurture a positive disposition and attitude to learning, to support educational achievements, to attempt to reduce dropouts, to help reduce the need for remedial education and to improve the efficiency of primary education. To achieve this, children will be provided with a pre-primary education and intervention in community centres, preschools or community primary schools. Whereas schooling will be provided either in the community primary school or government school, the first two years of primary school will adopt pedagogical methods and materials used in ECCD, in order to facilitate transition and make primary schools more welcoming for children. This will ensure that there is holistic development, child-centred pedagogy, an emphasis on the process of learning, and a mix of contextualized and de-contextualized learning.

Centre-based ECCD programmes will have a comprehensive framework and uniformity in terms of objectives and organization, content and approaches, training, government-community collaboration and funding. The framework will be made available to all private providers. Whereas community centres will provide the opportunity for easy access to ECCD experiences, the existing community schools and primary schools will continue to provide preschool programmes. Additionally, the schools can provide the space for bringing the community together in after-school programmes. Every ECCD centre will be staffed with trained and qualified ECCD educators. The centres will maintain a low teacher-child ratio, manageable class size, and adequate materials for organizing ECCD activities. While a cohort of ECCD personnel will be created, all existing primary school teachers will be reoriented to the ECCD principles and pedagogy, and to the planning and organizing of ECCD activities. (*Ibid.*).

Recently, a draft document on early learning and development standards for the age group 3-6 years has been made available (MOE-ECCD, 2010). The standards can be a valuable part of a comprehensive, high-quality system of services for young children, contributing to young children's educational experiences and to their future success. But these results can be achieved only if early learning standards: (i) emphasize significant, developmentally appropriate content and outcomes; (ii) are developed and reviewed through informed, inclusive processes; (iii) use of implementation and assessment strategies that are ethical and appropriate for young children; and (iv) are accompanied by strong supports for early childhood programmes, professionals, and families. The standards are only indicative of the benchmarks, they should not be used for screening of children or to label children as failures. The Bhutan standards would give emphasis to all domains of early development and learning namely: physical wellbeing, health and motor development; emotional and social development; language development (language, literacy and communication); general knowledge and cognitive development (logic and reasoning; mathematical and numerical knowledge; social conventional knowledge; creative arts); and spiritual, moral and cultural development (prayers and meditation; personal values; social values; national values; cultural appreciation). It is recommended, that since the ECD curriculum has already been developed, it should be appropriately linked with the standards. (*Ibid.*).

In 2010, there were 16,014 children enrolled in the pre-primary year. Additionally, there were 25 private daycare centres, with a total enrolment of 659 children and 79 caregivers (mainly female). (MOE-PPD, 2010).

Primary education

As mentioned, primary education currently covers the pre-primary class (PP) and grades 1 to 6; the admission age is 6. It is offered in community, primary and combined primary and secondary schools. In the 1960s, the country adopted a six-year primary cycle (infant-grade 5). Later in the 1970s, this evolved to a seven-year cycle (infant and kindergarten to grade 5), afterwards renamed lower kindergarten to grade 5. In 1986 it then changed to the current pattern PP-grade 6. (MOE, October 2008). On the basis of the National Education Framework 2010, under the new school system two years of kindergarten and grades 1 and 2 will form key stage 1, while grades 3 to 6 will be considered as key stage 2. (MOE, 2010).

At the primary level a school is either called a primary school or a community primary school. Both schools offer, in principle, seven years of education, from PP to grade 6. The objective of the primary education is to impart basic literacy and numeracy skills, to provide knowledge of the country's history, geography, culture and traditions and to teach the fundamentals of agriculture, health and hygiene, and population education. Moral and value education (Buddhism) are given special attention. Activity-based learning is used uniformly across the country to teach these skills and knowledge.

The weekly lesson timetable for primary education (2009) is presented in the table below:

Bhutan. Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade						
	(Future Key stage 1)			(Future Key stage 2)			
	PP	1	2	3	4	5	6
Dzongkha language	7	9	11	11	9	9	8
English language	7	8	10	10	9	9	8
Mathematics	8	9	10	10	9	9	8
Environmental studies	4	5	9	9	–	–	–
Science	–	–	–	–	7	7	7
Social studies	–	–	–	–	5	5	8
Arts and crafts	–	–	–	–	1	1	1
Value education	1	1	1	1	1	1	1
Library	1	1	1	1	1	1	1
Socially useful productive work	1	1	1	1	1	1	1
Physical education	1	1	1	1	1	1	1
Total weekly periods	30	35	44	44	44	44	44

Note: Being applied in 2009; each teaching period lasts 40 minutes. It is envisaged that Key stage 1 will include two years of kindergarten.



The Ministry of Education has been able to enhance access to education for population groups living in the rural and remote parts of the country through the establishment of community primary schools. A community primary school is a primary school that caters to a specific community, which can be a village or a cluster of defined villages. All the households in the community contribute labour towards the construction and maintenance of the school. The government provides support in the form of payment for skilled labour, and construction materials that are not locally available as well as textbooks, stationery and teachers. Over the years several community primary schools have been upgraded to lower middle and higher secondary schools. The difficult terrain and the scattered settlements in many parts of the Kingdom make it rather impractical for the establishment of a school within walking distance of every village. Therefore, primary boarding schools play an important role in extending educational coverage. Furthermore, the mid-day meal scheme has been instrumental in attracting and helping retain a large number of children in schools.

In the past at the end of grade 6 pupils used to sit the All Bhutan Grade 6 examination (previously, the Primary School Certificate examination) administered by the Bhutan Board of Examinations (BBE). In 1999, the responsibility of conducting the examination was transferred to the schools. The decentralization of examinations gives schools the responsibility for administration and marking of the examinations. However, for purposes of uniformity in standards the papers are still set by the BBE.

As of 2010, the general education system in Bhutan consisted of 25 private daycare centres, 267 community primary schools (of which one private school), 95 primary schools (of which 10 in the private sector), 90 lower secondary schools (of which two privately owned), 52 middle secondary schools (including one in the private sector), and 43 higher secondary schools (of which 13 were private). Furthermore, there were nine institutes with 123 teachers providing special education to 283 students, and 691 non-formal education centres with about 12,900 learners and 750 instructors. (MOE-PPD, 2010).

In 2010, there were 110,348 children enrolled at the primary level (PP-grade 6), of whom 55,019 were girls. There had been a notable expansion of the primary enrolment with an average increase of 2.8% per year for the last nine years. This increase has also been accompanied with the enrolment of many under-aged and over-aged children. For example, 48% of children enrolled in PP, 58% of children enrolled in grade 1, and 67% of second graders were over-aged in 2010. In the same year, the number of teachers teaching at PP-grade 6 level was 2,405, of whom: 1,377 (including 386 female teachers) in government community primary schools, seven teachers in the private community primary school, 896 teachers (including 461 female teachers) in government primary schools, and 125 (including 82 female teachers) in private primary schools. (*Ibid.*). In 2006, the gross enrolment ratio for PP to grade 6 was estimated at 102.1%, and the net enrolment ratio at 79.4%. (MOE, October 2008).

In 2010, the survival rate to grade 5 was estimated at 94% (95% for girls and 92% for boys). The repetition and drop-out rates are still high, particularly at grade 4 level (e.g. a repetition rate of 9.8% for boys and 8% for girls, and a drop-out rate of 5.2% for boys and 2.3% for girls). At the pre-primary level, in 2009/10 the repetition rate was 7.2% for boys and 5.8% for girls, and the drop-out rate was 2.5% for boys



and 3.7% for girls. The government has initiated a provision of fast tracking or promoting of students in order to enable students who are over aged and who have better learning abilities beyond their cohorts to advance to higher levels on merit basis. (MOE-PPD, 2010).

Secondary education

As mentioned, secondary education comprises two years (grades 7 and 8) of lower secondary school (previously called junior high school), two years of middle secondary (grades 9 and 10), and two years of higher secondary education (grades 11 and 12, formerly called junior college). At the end of grade 8 students used to sit the All Bhutan Grade 8 examination (previously the Lower Secondary School Certificate examination) administered by the Bhutan Board of Examinations (BBE); since 2006, the responsibility of conducting the examination was transferred to the schools.

At the end of grade 10 (e.g. the final year of basic education) students sit the Bhutan Certificate of Secondary Education (BCSE) examination conducted by the BBE. Admission to grade 11 in government-funded schools depends on the student's performance in this examination. Students who are not selected can attend private higher secondary schools at their own expense, or can join vocational courses that are state-funded or organized by private firms. While grades 9 and 10 are provided in all high schools, grades 11 and 12 (also known as pre-university classes or higher secondary and conceived as post-basic education) are provided only in selected high schools.

Higher secondary education is organized into three streams: arts, commerce and science. At the end of grade 12 students sit the Bhutan Higher Secondary Education Certificate (BHSEC) examination administered by the BBE. Vocational education and training programmes are currently offered only in Vocational Training Institutes (VTI), which enrol mainly grade 8 and 10 graduates. In 2008 there were seven VTIs. The duration of vocational training varies, depending upon the course. Programmes offered include: four- to six-year training courses in traditional arts and crafts provided to early school dropouts; a three-year certificate programme in various engineering disciplines; a six-month driving course for grade 8 leavers; a three-year engineering diploma programme for grade 10 graduates; a three-year agriculture training course for grade 10 graduates; health and nursing personnel training and secretarial and computer programming courses for grade 8, 10 and 12 leavers. On the basis of the National Education Framework 2010, under the new school system grades 7 to 10 will be considered as key stage 3, completing the basic education programme (grades 1 to 10). (MOE, 2010).

At the secondary level, the classification of a school depends on the final grade that is taught. Schools that offer up to grade 8 are called lower secondary, while schools that have grade 10 or 12 as their terminal classes are called middle secondary and higher secondary schools respectively.

The weekly lesson timetables for grades 7-10 (lower and middle secondary education) and for higher secondary education are presented below:


Bhutan. Secondary education (future key stage 3): weekly lesson timetable

Subject	Number of weekly periods/hours in each grade			
	7	8	9	10
Dzongkha language	7	7	4h10	4h10
English	7	7	5h	5h
Mathematics	7	7	5h	5h
Science/Health	10	10	–	–
Physics	–	–	2h30	2h30
Chemistry	–	–	2h30	2h30
Biology	–	–	2h30	2h30
History	4	4	2h	2h
Geography	4	4	2h	2h
Value education	1	1	–	–
Values/Health	–	–	50m	50m
Library	1	1	40m	40m
Socially useful productive work/Agriculture/Forestry	1	1	–	–
Socially useful productive work	–	–	40m	40m
Arts and crafts	1	1	–	–
Physical education	1	1	–	–
Elective subject (Economics, commerce or IT)	–	–	1h40	1h40
Total weekly periods/hours	44	44	29h30m	29h30m

Note: Being applied in 2009. In grades 7 and 8 each teaching period lasts 40 minutes. Figures for grades 9 and 10 refer to the actual hours of instruction, as the duration of periods varies from 40 to 60 minutes depending on the subject.

Bhutan. Higher secondary education: weekly lesson timetable

Subject	Number of weekly periods in each grade	
	11	12
Dzongkha language	5	5
English	6	6
Mathematics	(5)	(5)
Physics	(5)	(5)
Chemistry	(5)	(5)
Biology	(5)	(5)
Rigzhung (Buddhist studies)	(5)	(5)
Literature in English	(5)	(5)
Economics	(5)	(5)
History	(5)	(5)
Geography	(5)	(5)
Commerce	(5)	(5)
Accountancy	(5)	(5)
Business mathematics	(5)	(5)
Computer studies	(5)	(5)
Values/Health	1	1
Library	1	1
Socially useful productive work	1	1
Total weekly periods	31+3	31+3

Note: The timetable above is based on an average duration of 50 minutes per each teaching period. The duration of periods may vary from school to school, but it is expected that time allocation per subject is close to the timetable above. Students have to choose science, commerce or arts streams as a field of their studies. English and Dzongkha are common subjects for all streams. As per the BHSEC syllabus, students opting for the science stream must take mathematics, physics, chemistry, and biology/computer studies. Students choosing the arts stream must take history/business mathematics/mathematics, geography, economics, and literature in English/ literature in Dzongkha/computer studies. Students in the commerce stream must take business mathematics, accountancy, commerce, and economics/computer studies.

Provision of vocational education is under the responsibility of the Ministry of Labour and Human Resources. In 2010, there were eight Vocational Training Institutes with a total enrolment of 804 students (of whom 543 boys) and 103 teaching staff. As mentioned, programmes offered by VITs include: four- to six-year training courses in traditional arts and crafts provided to early school dropouts; a three-year certificate programme in various engineering disciplines; a six-month driving course for grade 8 leavers; a three-year engineering diploma programme for grade 10 graduates; a three-year agriculture training course for grade 10 graduates; health and nursing personnel training and secretarial and computer programming courses for grade 8, 10 and 12 leavers.

In April 2010 the Cabinet approved the policy framework linking technical and vocational education and training (TVET) programmes to tertiary education programmes. The Bhutan Qualifications Framework, as proposed in the Tertiary Education Policy, will be developed by the MOE, the Ministry of Labour and Human Resources (MOLHR) and the Royal University of Bhutan to set national standards and to harmonize all existing frameworks governing qualifications in the country. The MOLHR, besides the University, will also offer diploma-level training programmes.



The ministry will develop standards, curriculum and accreditation guidelines, and deliver the courses and conduct internal assessment of these programmes. The MOLHR will register, set occupational standards, internal assessment and accreditation guidelines, monitor quality and delivery of courses provided by private training providers. All courses offered by private or government training providers at the post-secondary non tertiary level and all courses offered to grade 12 graduates that are below two years in duration will be registered and accredited, and certificates and diplomas will be awarded by the MOLHR. Within the framework of the Tertiary Education Policy, the future Bhutan Accreditation Council will establish mechanisms for registration, quality assurance and final validation and award of diplomas at the tertiary level.

In 2010, the total enrolment in grades 7-10 was 46,722 students, of whom 23,764 were girls. A total of 24,904 students were enrolled in grades 7 and 8 (lower secondary), and an additional 21,818 students were in grades 9 and 10 (middle secondary). There were 1,899 teachers in lower secondary schools (of whom 961 were female teachers) and 1,433 teachers in middle secondary schools. The survival rate to grade 10 was estimated at 80%, and the transition rate from middle to higher secondary at 72%.

The top 40% of students who graduate from grade 10 are admitted in public higher secondary schools, based on their performance in the BCSE examination. In 2010, the total enrolment in grades 11-12 was 13,314 students (of whom 6,142 girls). The number of teachers was 1,330 (including 284 teachers in private schools), of whom 498 were female teachers. In public schools, 59% of students were enrolled in the science stream, 31% in the commerce stream, and 10% in the arts stream; in private schools, 60% of enrolments were in the commerce, 8% in the science, and 32% in the arts streams. A total of 8,898 candidates sat for the Bhutan Certificate of Secondary Education (BCSE) examination in December 2009, and the overall pass rate was 97%. A total of 6,530 candidates sat for Bhutan Higher Secondary Education Certificate (BHSEC) examination conducted in December 2009, and the pass rate was 91%. (MOE-PPD, 2010).

Assessing learning achievement nationwide

A new system to monitor quality of education over a period of time is being instituted called the National Education Assessment (NEA). This assessment measures literacy both in Dzongkha and English and numeracy in grade 6 as well as in grade 10. The test was piloted for a sample of grade 6 students in English and mathematics in 2003 and in Dzongkha in 2005. Similarly, the test for a sample of grade 10 students in English and Mathematics was piloted in 2006.

The National Education Assessment in Literacy and Numeracy at grade 6 level was conducted in November 2003 by the task force appointed by the Ministry of Education and coordinated by the Bhutan Board of Examinations. In the study, 1,926 students, 55 English teachers and 51 mathematics teachers participated from 49 schools in 20 *Dzongkhags*. Major findings included the following:

- The mean test scores were 23.08 out of 50 in Numeracy test and 26 out of 50 in Literacy test.



- The boys outperformed the girls in Numeracy test.
- The performance of students in geometry sub-test appears very poor.
- The performance of students in algebra sub-test also appears very poor.
- It shows that those who like mathematics score higher in that subject.
- The girls outperformed boys in the Literacy test.
- English teachers needed more help in the teaching of grammar.
- The literacy test mean is higher for those who like English.
- Both English and mathematics teachers relied heavily on textbooks as a teaching resource.
- The whole group of teachers do have in common is the relatively low experience of in-service education to update skills and refresh and enhance professional knowledge.
- Urban students outperformed semi-urban, rural and remote students in all cases.
- Shorter the distance traveled everyday to school better the performance.
- It appears that there is very little professional support provided to schools from the *Dzongkhags*.
- Too many school activities, class size and lack of resources loomed largest as major hindrances in carrying out the professional classroom duties by teachers. (BBE & MOE, 2004).

The Bhutan Learning Quality Survey (BLQS) was conducted in May-June 2007 under the supervision of the World Bank. The survey tested children in grades 2 and 4 in three subjects – Dzongkha, English and mathematics. It also collected information on the characteristics of villages, schools, teachers, students and their family background. The school survey was designed to be nationally representative and covers all Districts in the country. It covered a total of 120 schools, including 42 community primary schools, 32 primary schools, 32 lower secondary schools, ten middle secondary schools and four private primary schools. Tests were based on basic competencies in the three subjects for grade 2 and grade 4 as prescribed by the National Curriculum. The findings of this study indicate the following:

- The typical child in grade 2 has mastered the basic competencies that are expected of that grade within the context of the national curriculum in Dzongkha, English and mathematics.
- The typical child in grade 4 has attained average or mastery level competence in all competencies expected to be attained at the end of grade 4.
- Achievement is significantly and systematically correlated with some observable school characteristics, mainly related to teachers. Female teachers have a large and significantly positive impact on test scores in grade 2. Trained teachers have a large and significantly positive impact on scores in both grades.
- Gender is not significantly correlated with test scores.
- A child's age is negatively correlated with learning outcomes: older children have worse learning outcomes. Additionally, later development of cognitive skills is likely to have an impact on further learning due to weaker foundations for learning. (World Bank, 2009).

Teaching staff

The education system in Bhutan has historically relied heavily on expatriate teachers. In 1991, out of 1,939 primary teachers, 683 were expatriates. The programme of expansion posed considerable challenge for meeting the additional requirement of teachers as well as for the replacement of expatriate staff. To meet these challenges, enrolment, and therefore the output of the country's two teacher training institutes, was programmed to be doubled from 150 graduates annually in 1990 to 300 annually by 2000. The former National Institute of Education (NIE) offered a three-year Bachelor of Education degree programme for grade 12 graduates and a one-year Postgraduate Certificate in Education for candidates who already had a bachelor's degree either in humanities, commerce or science. The former two-year Primary Teacher Certificate (PTC) course was for grade 10 graduates at the NIE as well as the Teacher Training College in Paro.

Recently, the entry qualification of the pre-service teachers has been enhanced from grade 10 to grade 12, and the training, from the two-year PTC programme, to a four-year B.Ed programme. The infrastructure and the facilities of the National Institutes of Education both in Paro and Samtse have been enhanced. The teacher education curriculum has also been reviewed and improved.

Currently, Pre-service teacher education is provided at the Colleges of Education (CoE) in Samtse and Paro, now under the Royal University of Bhutan. Two pre-service teacher training programmes are offered, the Bachelor of Education (B.Ed) and the Postgraduate Certificate in Education (PGCE). The four-year B.Ed. programme caters for both primary and secondary teachers and is provided in both the colleges, whereas the one-year PGCE programme caters for secondary education teachers and is provided in the college at Samtse only. (MOE-PPD, 2010).

Entry into the PGCE programme requires a first degree, while the B.Ed programme requires a grade 12 or equivalent certificate. The B.Ed degree programme includes one year of field attachment as apprentice teacher at the beginning of the programme. From 2009 onwards the apprenticeship programme at the beginning has been discontinued and students undergo the apprenticeship during the third year of the programme. The B.Ed programme, which used to be only in English, has now been expanded to include Dzongkha. In 2010, the total enrolment in both colleges was 1,571 students, of whom 601 were girls.

Teachers are regularly updated on new developments in curriculum and other educational issues through in-service training and workshops organized at national, Dzongkhag (district) and school level as well as through fellowships outside the country. Since 2000, in-service teachers have had the opportunity to upgrade themselves to B.Ed in primary education via a distance education programme. In 2002, a Master's of Education programme was also started at the Paro College using the same mode. These programmes are in great demand, especially after a first degree became an official requirement for advancing in one's career. Teachers participating are offered classes during winter break and offered distance education during the academic year.



Out of a total of 7,067 teachers in 2010, 89% were trained in the teaching profession. About 52% of teachers had at least a bachelor's degree, and about 7% had a postgraduate diploma. Less than one per cent of the teachers did not have a grade 10 certificate. (*Ibid.*).

According to 2007 statistics, there were a total of 5,372 teachers in government schools. Of these, 2,763 had academic qualifications at grade 12, 10 or below, while 2,609 teachers had a bachelor's or a master's degree. Low academic and professional standards for entry into the teaching profession are major constraints in the current system. There is also a considerable backlog of teachers with PTC certificates waiting to be upgraded professionally through distance education programmes. Although 80% of teachers say that they have attended some kind of in-service training programme, many say that the time gap between such programmes can be as long as a few years, and the programmes themselves are sometimes irrelevant to classroom applications, and need improvement in the training methodology. Moreover, there is a dilution of content at the school level when fellow teachers conduct the training after attending national level programmes. There is a lack of an integrated approach to teacher preparation and professional development and lack of linkages/continuity between pre-service and in-service education and training. Graduates have to compulsorily serve in a remote place for at least three years during their initial appointment. Teachers who have spent 18 years or more in an urban place are then transferred to remote areas. These factors discourage graduates from joining the teaching force. Currently teachers and lecturers are governed and administered by the Royal Civil Service Commission, which determines their pay scale, placement in schools, transfer and deployment, working conditions, etc. Teacher deployment suffers from a lack of organization. There are frequent teacher postings and movement of teachers from one school to the other with little thought to assignment suitability. Haphazard and inappropriate teaching assignments are given. (MOE, 2010).

A survey carried out under the supervision of the World Bank observes that "the share of female teachers is higher in primary, lower and middle secondary schools, as compared to community schools. Female teachers constitute nearly three-quarters of the teaching force in the private schools in the sample, against only two-fifths of the teaching force in public schools. A higher share of teachers in private schools has only pre-qualification education status. Three-quarters of the teaching force in public schools has a B.Ed. or some form of teaching certificate against only one third in private schools has a B.Ed.. The share of teachers with a university graduate degree is lowest in community schools, and highest in middle secondary schools; teachers with university graduate degrees are otherwise similarly distributed in primary and lower secondary schools, and across public and private schools. A higher share of teachers in community schools and public schools has less than one year of experience, on average. In community schools, teachers with less than one year of experience constitute nearly a quarter of the teaching force. Nearly half of the teachers in all school categories have 3-12 years of experience. There are no data available on teacher salaries, so it is not possible to compare salaries across the public and private sector teacher markets. In terms of contractual status, teachers with permanent contracts dominate in all school categories including private schools. Permanent contractual status does not, however, mean the same thing across these school types. Among public schools, community schools have the lowest share of



teachers with permanent contracts, and primary public schools have the highest share of teachers with permanent contracts. (Non-permanent contractual teachers in the public schools include temporary/guest teachers and interns). On average, permanent teachers are 85% of the teaching force.” (World Bank, 2009).

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For updated links, consult the Web page of the International Bureau of Education of UNESCO: <http://www.ibe.unesco.org/>