

Bhutan

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Principles and general objectives of education

Education is recognized both as a basic right and as a pre-requisite for achieving the wider social, cultural and economic goals set for the country within this national vision. One of the strategic objectives for this sector is to continuously improve the quality and relevance of education to ensure holistic development of the child, encompassing innate abilities, moral and social values, social cohesion and the world of work including agriculture and other vocations. The education policy of the Royal Government of Bhutan is to offer a minimum of nine years, free quality basic education to all its citizens.

Current educational priorities and concerns

Government's targets for the education sector are: an annual primary enrolment growth rate of 6%; an increase in female enrolment at the primary level from 67% to 90%; an improvement in the completion rate of primary schooling from 35% to 80%; and an increase in the literacy rate.

Four other subsidiary goals were set: (i) a reduction in the annual drop-out rate at the primary level from 10% to 5%; (ii) a reduction in repetition rates from 21% to 10%; (iii) universal coverage of the new primary curriculum based on activity methods; and (iv) an increase in the annual number of participants enrolled in the non-formal education programme from 300 to 4,800.

Actions have been undertaken to reach these objectives and to tackle a number of problems the education sector is facing, related to issues such as lack of resources and the quality of education.

Enrolment at the primary level increased at an annual growth rate of 7.7%. This has been facilitated by the establishment of community schools in remote villages, development of boarding schools, rehabilitation of existing schools and establishment of a number of private primary schools. The proportion of girls in total primary enrolment stands at 45%, and the annual drop-out rate has been reduced to 6%.

Many of the beneficiaries of this expansion have been children living in the peripheral and remote parts of the country and those engaged in transmigration practices. In fact, one of the most disadvantaged groups of population in terms of access to education has until recently been the yak herders, who lead a semi-nomadic life. Until 1991, there were only three schools catering to this population group. Three more community schools have now been established and it is estimated that the coverage of education is well above the national average.



The government has always been concerned with high wastage in the education system caused by the high numbers of repeaters and drop-outs. In 1990, about 7% of students were dropping out from every grade every year. Similarly, about 21% were repeating a grade every year. It has been planned to reduce repetition and drop-out rates to an average of 5% and 10%, respectively, by the year 2000.

The strategy for reducing this wastage includes, among other factors: abolishing end-of-year examinations at the primary level and basing promotions on continuous classroom assessment; ensuring that teachers on transfer to new duty stations, as well as textbooks and stationery, arrive in schools at least one week before the beginning of the school year; and regular monitoring and evaluation of teachers performances in schools with emphasis on assistance, guidance and coaching of weaker students.

The most successful programmes that Bhutan has implemented in recent years were those that relied on community participation and involved little additional resources. In particular, the community schooling concept now enables the establishment of primary schools anywhere in the country with significantly lower costs to the government. An important reason why the government has not achieved universal primary education is because of its inability at this stage to provide adequate trained teachers and learning resources to all such schools. In addition, there is a need to devise programmes and create facilities for enrolling population groups such as those that have physical and mental disabilities as well as those who adopt nomadic life styles.

In line with its policy of decentralization and community participation in decision-making, the government has initiated a capacity-building programme and has proceeded to the decentralization of management. Since 1997, the Strengthening Capacities for Development Management and Decentralization programme—with assistance from the UNDP—trains community leaders from ten blocks in six districts in local development of plans and programmes, effective communication and reporting skills. They were also briefed on policies and guidelines that directly affect their lives, such as irrigation and water users associations.

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 past decade. Furthermore, at all levels of education the curriculum continues to be questioned. A major concern is that the existing curriculum does not fully address the objectives related to values, skills and knowledge required by the future generation. Emerging problems related to rural-urban migration and juvenile delinquency have also been blamed on the education system and its inability to address such issues adequately.

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 in the past decade. Songs, dances and music now form important part of the school's co-curricular activities. Taking into account that over 80% of the country's population 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.

One of the most significant events in the domain of curriculum development is the articulation of a framework for learning, which defines the purpose of education and describes its components to the barest details. This document helps not only curriculum specialists but also teachers. It is a major achievement of the decade because it translates many of the abstract goals into easily understandable objectives for ordinary teachers.

Another achievement is the non-formal education (NFE) programme. The NFE system, which started with six centres and 300 participants in 1992, has developed to 105 centres with over 3,000 participants, of whom more than 70% are women. According to a recent survey, the NFE programme has enabled participants to acquire basic functional life skills in reading, writing and mathematics as well as knowledge on health, nutrition, hygiene and sexually transmitted diseases. Bhutan is now ready to implement the programme on a large scale.

For early childhood care and development, there exist no special programmes and facilities, except for nursery education services provided by a few private schools. Programmes are now underway to include this dimension in NFE courses so that parents are better prepared to undertake this task.

The issue of resources, particularly of shortages in materials and teachers, is a matter of concern. Despite a number of strategies that have been implemented this has been the biggest stumbling block, heading the list of issues within the Division of Education. Even if communities bare an increasing cost of the primary education programme through the development of community schools, the contribution from many international donors does not reflect the significant expansion of the system. In fact, resources from certain organizations have even fallen.

At the same time, enrolment expansion at the primary level has created even more pressures at the secondary education level. This has resulted in critical shortages of facilities as well as lack of adequate competent teachers for this level of education. Therefore, teacher shortage continues to head the list of problems faced by schools at all levels. The gap has been filled by a large number of expatriate teachers. While the existing schools combat with the problems of increasing enrolments and limited space, the two technical teacher training institutes continue to remain under-enrolled every year. Apart from social prejudices against vocational and manual work, lack of information and guidance in schools has been pointed out as one of the contributing factors for such imbalances.



Enhancing the qualifications of teachers through pre- and in-service training programmes and improving the teaching/learning facilities in schools are other measures in which the government has been engaged to improve the quality of education. In addition, the introduction and institutionalization of a continuous assessment system has made the education system much more responsive to individual needs and the learning pace of students.

The involvement of the private sector has been looked upon as a possible means of alleviating the admission pressure. Nevertheless, taking into account the questionable quality of the programme offered by some private schools, the government has taken a stance not to allow any more private primary schools to be established in the country, and to authorize the establishment of schools that only cater to the secondary and post-secondary levels.

An important programme that could not be properly implemented was the rehabilitation of primary schools. In order to provide quality education it was deemed necessary to provide at least basic minimum standards in the facilities. In addition, it has been noted that better living conditions are required in order to retain teachers in remote schools. However, within the conditions of a perpetual resource constraint, the rehabilitation and improvement of existing schools always feature last in a long list of priority programmes.

Another programme where the government has not been able to make much headway has been on education for children with disabilities. The proposed survey for disabilities did not take place as planned. However, the School for the Blind was renamed as the National Institute for the Disabled (NID), showing the intention of the government to use this institute as a focal point for developing programmes for a population with other forms of disability. Some vocational programmes for blind students have been introduced so far. Initiatives are being undertaken for the integration of special education in regular schools and the expansion of NID facilities to provide education to children with other forms of disabilities.

While parental contribution for establishing new primary schools has increased over the past decade, the costs of teacher salaries, materials, stationery and textbooks continue to be largely borne by the government. This has led the Division of Education to look closely at the cost effectiveness of the system and to review its free education policy, which was originated at a time when few students were enrolled and when most parents did not have the capacity to financially contribute to education. With the rapid expansion at the primary level and the foreseen growth at the other levels of education, it has become difficult to sustain the system. Therefore, since 1994 the provision of free stationery has been removed from primary schools located in urban areas. Similarly, boarding places of primary and junior high schools (Grade VI and below) have been phased out and are available only for children qualified to continue to higher grades and where there are no such schooling facilities near homes. However, such initiatives are being implemented cautiously and are closely monitored to ensure that this does not affect the enrolment of any particular groups of population.

Many parents are now themselves educated and can participate in the provision of education to their children, both at home and in schools. Some of these



parents can provide valuable inputs in the process of improving the quality of education. Many parents are also able to cover the cost of their children's education, or at least some portion of it. The government's decision to withdraw free supply of stationery has not in any way diminished the demand for education. Furthermore, a progressive increase in the share of costs by parents could now become a possibility, given the increase in average earnings as well as the prevailing high demand for education.

In spite of all efforts and considerable success, the full achievement of the objectives is impeded by a high population growth and a constraint of resources. For example, although the country exceeded the targeted enrolment growth rate of 6% annually, the gross enrolment ratio at the primary level is estimated to be only 72%. Similarly, in spite of doubling teacher training capacities, the enrolment growth has far exceeded the increase in the number of teachers. This has resulted in a deteriorating teacher/pupil ratio.

The challenge ahead for Bhutan is to provide education to those population groups that are most disadvantaged in terms of remoteness, physical or mental handicap, and lack of interest in education or early drop-out from the education system. Along with this, maintaining the quality of education in the face of expansion at all levels will be another great challenge. Since 2000, the education sector has been working on the task of framing a strategic plan or framework for education following the document called: *Education Sector Strategy: Realising the Vision 2020*. It is an articulation of the goals and processes for achieving Bhutan's aspirations in the education sector, as part of the wider development initiatives toward becoming a progressive sovereign nation.

Laws and other basic regulations concerning education

Though the country at the moment has no legal framework or an education act, the government has strong commitment to pursue universal basic education. Education is provided free to all the children even beyond the basic education level. 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.

Administration and management of the education system

The **Ministry of Education** (formerly, the Ministry of Health and Education) stands at the head of the educational administration. The Minister is supported by the Ministry Secretariat, which is headed by a Secretary. The Secretariat is organized into the Policy and Planning Division and the Administrative and Finance Division, each headed by a Deputy Secretary. The Bhutan Board of Examinations, School Planning and Building Division (SPBD), Education Media (previously known as the Audio Visual Unit) and the National Commission for UNESCO are also a part of the Secretariat, and are directly accountable to the Secretary. The Internal Audit Unit headed by a Chief Internal Auditor reports directly to the Minister.



There are four Departments under the Ministry of Education; the Department of School Education (DSE), the Department of Adult and Higher Education (DAHE), the Department of Youth, Culture and Sports (DYCS) and the *Dzongkha* Development Authority (DDA). Each Department is headed by a Director, (Director General in the case of DDA), 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 4 Divisions as follows: Curriculum and Professional Services Division, Education Monitoring & Support Service Division, Programme Division and Teacher Development Division. The Programme Division administers the following programmes: School Information Technology, Special Education, Early Childhood and Care Development (ECCD), School Agriculture, School Nutrition and Feeding and Private Schools development. A School Liaison and Coordination Unit also support the Department. The Department of Adult and Higher Education is also organized into the Tertiary Education Division, Scholarship Division and Non-Formal and Continuing Education Division. The Department of Youth, Culture and Sports is organized into the Career Education and Counselling Division, Games and Sports Division and Scouts and Culture Division. The *Dzongkha* Development Authority (DDA) is organized into the Literacy Promotion Division and the Research and Development Division.

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 *Dzongkhags* 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 co-ordinates 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. During the last ten years, 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 150 schools have been constructed by communities over the last decade, 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*—block or village headman), 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 NFE programme. All NFE centres are managed by the NFE committee consisting of the school headteacher and village elders under the chairmanship of the *gup*, who is directly responsible for planning and management of literacy programmes in the community.

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.

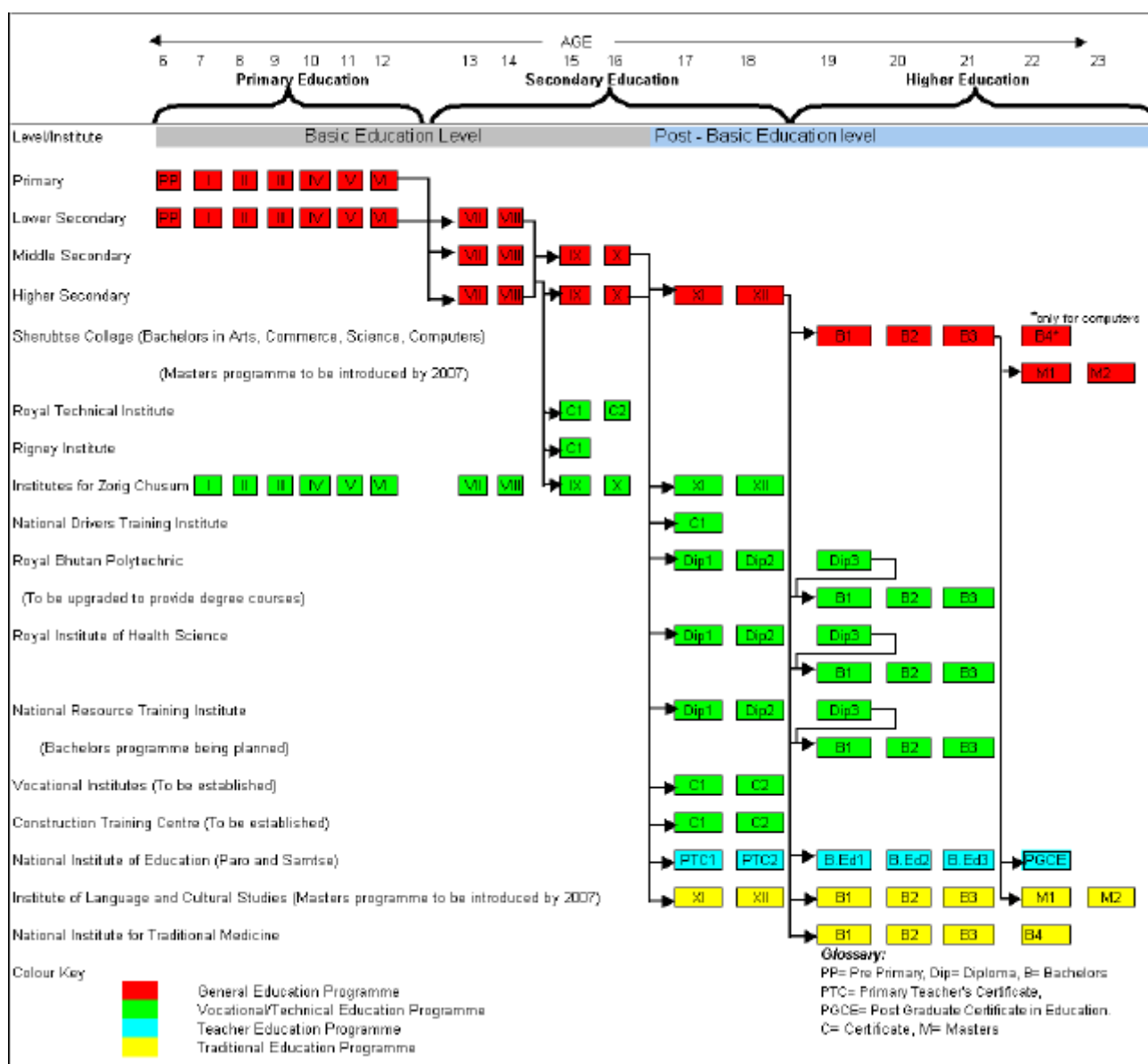
The **Bhutan Board of Examinations** is responsible for organizing and monitoring national examinations, i.e. the All Bhutan Primary Certificate Examination at the end of Grade VI and the examinations at the end of the basic education programme (Grade VIII) and at the end of Grade X. The latter examination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

The **Information, Education and Communication for Health Bureau** was created in 1992, primarily for educating the public on basic health, hygiene, nutrition and family planning. The Bureau publishes pamphlets, leaflets and flip charts for distribution to the public. It also organizes health festivals, exhibitions and plays to enhance awareness.

The responsibility for general education, technical education and higher education is now divided between the Ministry of Education, the recently established **Ministry of Labour and Human Resources** and the Royal University of Bhutan.

Structure and organization of the education system

Bhutan: structure of the education system



Source: Ministry of Education.

Pre-school education

Pre-primary education is a formal, one-year programme offered in primary and community 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.



Primary education

Primary education covers the pre-primary class (PP) and Grades I–VI. It is offered in community, primary and junior high schools. At the end of Grade VI, pupils sit the All Bhutan Primary Certificate examination administered by the Bhutan Board of Examinations (BBE).

Secondary education

Junior high and high schools usually offer two additional years of study (Grades VII and VIII), completing the basic education level. At the end of this programme, students sit the national examination administered by the BBE. Admission to Grade IX is based on the student's performance in this national examination. Secondary education covers Grades IX–XII. Students have to sit an examination at the end of Grade X, which completes the basic education level. While Grades IX and X are provided in all high schools, Grades XI and XII (also known as pre-university classes or higher secondary and conceived as post-basic education) are provided only in selected high schools.

At the tertiary level, the National Institute of Education (NIE) offers a three-year Bachelor of Education degree course for Grade XII graduates and a one-year teacher training programme—Post-Graduate Certificate in Education—for candidates who already have a bachelor's degree either in humanities, commerce or science. The two-year Primary Teacher Certificate course is for Grade X graduates at the NIE as well as the Teacher Training College in Paro.

Information concerning the official duration of the school year is not available.

The financing of education

Between 1992 and 1997, and during the Seventh Plan, the government allocated 1,738.87 million Ngultrum (NU) for the education sector. The estimated expenditure at the end of the Plan was recorded as NU1,799 million for the whole education sector, out of which NU559 million was spent on developmental projects (capital). Out of capital works, it was estimated that NU248 million, or 44% of the total, was spent on development of infrastructure related to primary education. On average, therefore, the government spent NU50 million per year on capital development programmes for primary education. Furthermore, annual costs per child at the primary education level in the period 1991–98 range from NU2,500 to 2,800. Out of this, 72% is spent on teachers' salaries and related expenses, 9% on books, stationery and other learning materials. Food represents about 8% of the expenditure, while maintenance of infrastructure and in-service teacher training absorbs about 2%.

It is estimated that the government spent NU126 million on primary education in 1991. This has doubled to NU277 million in 1998. However, as a percentage to the total current expenditure on education, the share of primary education saw a gradual decline from 67% in 1991 to 61% in 1998. A reliable assessment of community contribution is not available, but it is generally assumed that there has been an increase in the level of contributions over the last decade.



With respect to the NFE programme, the major costs incurred during the period 1992–98 have been related to development of materials and teacher training. Very little costs have been incurred on capital development, as classes are mostly conducted in existing formal schools. Teachers' remuneration has also been minimal as the NFE programme utilizes the services of the formal school teachers on very nominal charges. Total expenditure incurred on the NFE programme is estimated at NU2 million per year.

The present accounting system makes it difficult to provide a clear cut statement of expenditure, particularly when many of these activities cut across sectors such as health, agriculture, communication, etc. This is also complicated by the fact that even within the education sector the budget may be allocated by institutions and not by programmes.

Although the government allocates the highest budget to the social sector (health and education), in each development plan period funds are insufficient to address problems such as teacher shortage, lack of facilities and maintaining the quality of education. Hence, during the last decades almost the entire capital development component of the budget—which covers construction of facilities and enhancing the school environment in terms of providing furniture and equipment and developing libraries, science laboratories and sports fields—has been met through international co-operation. The need for funds however far outstrips the volume of aid from bilateral and multilateral partners. Nevertheless, it is to be noted that without their support, Bhutan would face serious constraints in providing quality education to all.

Major partners in education development since 1990 include UNICEF, the World Bank, the Governments of India and Switzerland, the United Nations Capital Development Fund, the Asian Development Bank and the World Food Programme. Other organizations that are supporting education development through smaller projects are UNDP, UNFPA, UNESCO, and the Governments of the Netherlands, Denmark, Canada and Japan.

A study by the Division of Education (1994) indicates that community inputs are proportionately greater in community schools than in primary and junior high schools. They are also proportionately greater in rural than in urban schools. The report also highlighted that community interactions are not necessarily confined to the above lists but are used in some cases to recruit temporary teachers. In addition, many schools collect funds in order to organize cultural and social activities not covered by the government's regular budget.

The proportion of the education budget within the Government budget during the last nine Five-Year Plans has continued to be around 10%, even in the face of other emerging priorities and competing demand from other areas.



The educational process

Bhutan has a national curriculum. The Curriculum and Professional Support Division carry out curriculum related functions. Presently a review and restructuring of the curriculum—especially English language and mathematics—is in progress. Through this exercise the Ministry hopes to make the curriculum more responsive to the social and economic environment, including a greater role in information communication technology.

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 teaching-learning program 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. Examination systems are being reviewed and standardized tests are being piloted to provide meaningful feedback on the quality of education to the educators and the general public. 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 enhancement of formal education curriculum with the introduction of the basic skills development programme and youth programmes has far reaching impact. The incorporation of basic knowledge on health, nutrition, sanitation and reproductive health in the school curriculum not only improves the personal hygiene and health of the students but sensitized students on the important emerging issues such as HIV and AIDS.

Pre-primary education

Children of 6 years of age are admitted in the pre-primary class within primary schools. Since 1990, enrolment has increased by 5%.

At the beginning of the 1990s, the dimension of early childhood development 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 child care in order to achieve a reduction in infant and child mortality rates. Therefore, no specific targets or goals were set for this dimension. However, the government has addressed the issue through sectoral inputs in the areas of health, nutrition and education. Nurseries and day-care centres are now being established by the private sector in urban areas.



In order to provide essential care and prepare children for the formal education programme, the following activities were outlined:



- a child-care programme should be developed and implemented using the national radio;
- the subject of early childhood development should become a component of the non-formal education programme to be developed for the country;
- the government has to continue encouraging private individuals and entrepreneurs to set up child-care centres and nurseries in areas where demand for such programmes exist; and
- the government has to continue providing pre-primary education in all primary schools for children who have attained 6 years of age.

Primary education

The objective of the primary education in Bhutan is not only to equip the students with basic literacy and numeracy skills but also to impart knowledge of the country's history, geography and traditions. In addition, the functional skills such as fundamentals of agriculture, health and hygiene and population education have also been incorporated in the primary school curriculum. Over the years the moral science and value education are also being given special attention within the education programme. All these are being provided within the framework of the new system of activity based learning, which has been adopted uniformly across the country. The areas of studies for the general education programme are shown in the table below:

Area of Studies for the General Education Programme (PP-X)

Area	Subjects	Primary Education						LSS		MSS		
		PP	I	II	III	IV	V	VI	VII	VIII	IX	X
Language	Dzongkha											
	English											
Mathematics	Mathematics											
Science and Technology	Science											
	Physics											
	Chemistry											
	Biology											
	Computer Applications											
Human Society and Environment	Environmental Studies											
	Social Studies											
	History											
	Geography											
	Economics											
Creative and Practical Arts	Visual arts and craft											
	Songs, dances, Music											
Health, Physical Education and Personal Development	Health & Population Education											
	Games and Sports											
	Moral and value education											
	Scouts											
Socially Useful and Productive Work	Agriculture and Social Forestry											
	SUPW											
	Basic Vocational Skills											

- 1  Learning areas with specific subjects and periods set in the timetable.
- 2  Learning areas addressed in co-curricular programmes, school organizations or integrated in the subject areas above.

Source: Ministry of Education.



Primary school enrolment increased by 7.7% annually during the period 1991–98, which is more than the projected target of 6%. The gross enrolment rate, estimated at 72% is, however, much lower than the target of 90%. This apparent anomaly may be explained by the high population growth. It is also estimated that the proportion of school age children in relation to the total population will increase from 15% to 18%. This equals 18,000, which represents only half the increase in enrolment registered during this period.

Furthermore, the net enrolment rate is estimated at only 53%, which indicates a high number of over-age children. One of the main reasons for this is the late entry into schools. It is quite common for parents to enrol children from 6 to 12 years of age in the pre-primary class. The other reason is the high repetition rate.

In 1998, primary education was provided in 115 community schools, 128 primary schools, 42 of the 44 junior high schools and seven private schools. An interesting point is the gradual decline in the growth rate, from 10.5% in 1991/92 to 4.5% in 1997/98. This is mainly the result of an attempt made by the government to slow the pace of enrolment expansion in order to match the availability of teachers and materials, as well as the application of more stringent rules to restrict the entry of under-age children in school as a measure of controlling grade repetition. Therefore, the apparent deficiency in the progress related to coverage needs to be viewed within the light of these more positive developments.

It should be mentioned that enrolment rates remain estimates since accurate demographic data are not available. In addition, accurate data on children enrolled in the monastic schools, run either by the Central Monastic Body or private monasteries, are not available.

Interestingly, the growth rate of 7.7% in the formal education system has not been so much a result of increased intake as an increase in retention. Intake at the primary education has increased by an average of 3.3% annually only. It is also evident that the growth rate has not always been uniform. As a matter of fact, there were years where there were even decreases in the intake rate. It may be also be noted that the growth rate for girls is higher at the intake level as well as in the total system.

One of the most important and effective factors that supported enrolment growth at the primary level has been the creation of community schools. Community schools are essentially primary schools that cater to a specific community, which can be a village or a cluster of villages. The most notable feature of community schools is that they are constructed and maintained by the communities, using locally available resource materials. The government supplies materials which are not locally available such as roofing materials and window sheets.

During the period 1991–1998, 158 new community schools were established in the most disadvantaged and remote parts of the Kingdom. The enrolment has been growing steadily from 5,576 pupils in 1991 to 12,695 in 1998. Some of these schools have been converted to primary boarding schools, thus catering also to other communities. Therefore, in 1998 there were only 115 schools retaining the name of ‘community school.’ These schools enroll almost 17% of the total student population at the primary level.



The establishment of community schools has helped ensure the sustainability of an expanding education service and is credited for having reduced rural-urban migration and therefore overcrowding of urban schools. These schools have also become centres of continuing education for many communities. School facilities are used for conducting non-formal education classes using existing teachers after school hours. Vocational skills training programmes, for the benefit of the community, are also offered in these schools.

Small community-based schools were identified as the most cost-effective and sustainable means of ensuring that quality education reached the rural and remote parts of the country. They are single- or two-teacher schools taking up multigrade teaching and catering to very small catchment areas within walking distance. These schools were initially intended to provide education from pre-primary to Grade III, with provision to go up to Grade VI depending on the enrolment sizes and the availability of facilities.

While 17% of the PP-Grade VI enrolment expansion is attributable to the new community schools, the rest of the expansion was absorbed by the existing schools through additional developments, such as the creation of new classrooms and increases in class sizes. The result of these efforts is that there is now a generally higher level of enrolment in almost all schools compared to 1991, with the result that the average size of a community school is around 110 pupils, compared to 66 in 1991. Similarly, the average size of a primary and junior high school is 326 and 671 pupils as compared to 252 and 505 pupils, respectively, in 1991.

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. Around sixty primary schools were identified to be developed into such schools. Furthermore, the mid-day meal scheme has been instrumental in attracting and helping retain a large number of children in schools.

Although no social bias exists against the enrolment of girls, historically fewer girls have been able to attend school because of the distances involved in reaching them. The percentage of girls to the total enrolment in 1990 was 39%. This was proposed to be further increased to 47% by 1997 and to almost 50% by the year 2000. Therefore, building more community-based schools and creating additional hostel facilities for girls was perceived as an effective means to increase girls' enrolment in some areas. In other areas it was envisaged that headmasters and schools would undertake active campaigns to sensitize parents. The institution of School Management Boards has also influenced, to a large degree, the mobilization of community support in this field. The ratio of girls to boys in the primary system was 45:55 in 1998, which is a marked improvement compared to 1991, when it was 41:59.

The period 1990–1998 saw major activities related to improving the curriculum content in each of the subject areas to make it more relevant and meaningful. This has been carried out within the context of achieving defined basic learning competencies at the end of every grade of primary education.



Improvements in learning process were obtained within the context of the New Approach to Primary Education (NAPE). This approach has been successfully tested in some schools since 1985 and is widely credited for helping break the traditional chalk-talk method to an activity-related and more effective learning process. NAPE is also credited for making the learning process much more meaningful and enjoyable to the students. The NAPE system is now adopted throughout the whole primary education programme.

Another significant step in helping to improve the teaching/learning process has been the adoption of a class-teacher system for the lower primary grades. In this new system, a single teacher teaches all the subjects in his/her class. Apart from facilitating the teacher to know the students better, the system also allows for flexibility in switching from one topic of interest to another, thus strengthening interdisciplinarity within the educational programme.

Related to this is also the adoption of a system of multigrade teaching to deal with situations where a teacher has to teach more than a class at the same time. This is an extension of the NAPE system that, among others, encourages ability groupings and peer interaction while learning. This method also facilitates pupils participation, thereby motivating and improving the learning environment.

At the end of Grade VI, pupils sit the All Bhutan Primary Certificate examination. Although the education policy is directed at improving completion rates, it is estimated that only 48% of pupils who have enrolled in pre-primary education complete their primary studies.

There have been significant changes in assessment and evaluation methods. While access from one class to the next is based on a system of continuous assessment as well as term examinations, access from one level of education to the next is based mostly on the national-level and external examinations. Those who do not qualify for promotion to the next level, repeat, drop-out or enrol in a training programme.

The educational programmes traditionally relied heavily on end-of-year examinations. One of the main drawbacks of such a system was that this did not make adequate provision for the wider aspects of education, such as those related to values and attitudes which are not easily amenable for testing and examinations. Moreover, much of the technique applied served a summative purpose and did not really help in improving pupil achievement. Therefore, since 1995 a lot of emphasis has been put on the development of a continuous assessment system throughout the year that caters to social and other important skills of pupils as well as serving an important feedback for both pupils and teachers.

The Primary School Certificate examination which was once a 100% pen-and-paper test has throughout the past decade been changed to a combination of continuous assessment by the school and external examinations, with 50% weightage being provided to each component.

An analysis of pass rates for Grade VI pupils in the period 1991–98 indicates a steady improvement. Compared to a pass rate of 65% in 1991, 90% of the pupils who have reached Grade VI in 1998 passed the national-level examination. Statistics give



the impression that the quality of the learning process has improved over the years, but the reality is much more complex. First of all, in 1991 the Division of Education launched a new examination system which, while considered as being much more reliable, also introduced the concept of standardizing the raw scores to allow for a fixed percentage of pupils (60-65%) proceeding to the next level of education. Later, when the Division decided on a 50:50 internal-external assessment approach, the standardized scoring approach was only applied to the external examinations marks.

There is also a general improvement in the pass rates at every grade as reflected by the steady reduction in the repetition rates. For example, compared to an average repetition rate of 22% in 1991, the repetition rate for Grades PP-VI in 1998 was 13%. Similarly, drop-out rates have reduced from 10% annually from every grade to 5% in 1998. As a result, it is now estimated that there is a significant improvement in the completion rate of primary pupils.

Currently, about 95% of those that reach the end of the primary (Class VI) continue to the next level of education while others drop out or repeat Class VI. In 2003, the enrolment at the primary level was 48,670 pupils. Primary education is now provided in 188 community primary, 90 primary and 13 private schools. The teacher to pupil ratio is 1:37.

Secondary education

Secondary education includes general academic, technical and vocational education. Lower secondary education is part of basic education and covers Grades VII and VIII. It is provided in junior high and high schools. General higher secondary education comprises two years of high school education (Grades IX and X), provided in all high schools, and two years of pre-university classes (Grades XI and XII), provided in selected high schools.

At the end of Grade X, students have to sit an examination which is administered jointly by the Bhutan Board of Examinations and the Council for the Indian School Certificate Examinations of Delhi. The joint examination system is a recent development towards attaining autonomy in both curriculum objectives and the assessment system. Until 1996, the Grade X-level examination was conducted by the Council in Delhi. The Council continues to conduct examinations, and provide certification, at the Grade XII level.

Furthermore, in 1999 the Technical and Vocation Education Section (TVES) of the Division of Education started the creation of nine vocational centres. In addition to providing basic vocational training to school-leavers seeking employment, these centres are expected to promote vocational skills among students. The vocational centres will be based in schools and institutions and provide training programmes adapted to local demands. Ten vocational instructors have been trained. They will provide the lead role in running these centres. In addition, TVES is expected to provide mobile technical staff to support these programmes.

Another important programme recently established by the government is *Rigney* Education (Traditional Arts and Craft School). This programme is mainly targeted at school-leavers who wish to take up vocations in traditional arts and crafts.



The Trashy Yangtse Rigney Institute in eastern Bhutan offers training in the thirteen traditional arts and crafts known as *Zorig Chusum*. The school, established in 1997, has an enrolment of thirty students. In addition, the Painting School in Thimphu, which trains students in Bhutanese religious and traditional decorative arts, has 56 students.

At the secondary level, in classes VII–XII the number of students increased from 31,888 in 2002 to 43,540 in 2006. Lower secondary education is provided in 77 lower secondary, 21 middle secondary, 9 higher secondary and 3 private high schools. In 2003, there were 16,346 students in classes VII and VIII, 12,537 students in classes IX and X, and 5,830 students in classes XI and XII. A total of 2,712 teachers taught in secondary schools of whom 1,097 (40.5%) were female. The teacher to pupil ratio was 1:26. At present nearly 90% of those who reach Class VIII continue to class IX, about 30% that reach class X continue to class XI. The overall retention rate is thus less than 27% from Class VI to XII, given that students depart voluntarily at classes VI, IX and XI.

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 class VI as well as in class X. The test was piloted for a sample of class VI students in English and mathematics in 2003 and in Dzongkha in 2005. Similarly, the test for a sample of class X students in English and Mathematics was piloted in 2006 and the Dzongkha test is expected to be piloted to class X students in 2007. The same test will be repeated for both classes after five years time. This would give a comparative score between two cohorts of students which would indicate whether the standards are improving or declining.

The National Education Assessment in Literacy and Numeracy at class VI 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 and Ministry of Education, 2004)

Higher education

At the tertiary level, the National Institute of Education (NIE) offers a three-year Bachelor of Education degree course for Grade XII graduates and a one-year teacher training programme—Post-Graduate Certificate in Education—for candidates who already have a bachelor's degree either in humanities, commerce or science. The two-year Primary Teacher Certificate course is for Grade X graduates at the NIE as well as the Teacher Training College in Paro. The Royal Bhutan Polytechnic offers two-year certificate courses and three-year diploma courses to Grade X graduates.

Overall, tertiary education in the country is provided in Sherubtse College, the two National Institutes of Education at Paro and Samtse, the Institute of Language and Culture Studies, the National Institute of Health Sciences, and the National Institute of Traditional Medicine, which together offer higher education to about 8,000 students. In addition, Bhutan continues to send about 100 students annually on scholarships to other countries, mostly to study medicine, engineering and agricultural sciences. Less than 1% of the total enrolment is at the higher education level.

Special education

Apart from a School for the Blind, there is no educational establishment in the country catering to disabled children. Educational programmes and facilities are being developed to integrate, wherever possible, disabled students into the mainstream schools from 1997 onwards.

The School for the Blind was upgraded to the National Institute for the Disabled and its management taken over by the Technical and Vocational Education Section of the Division of Education. Consequently, the programme for blind children was enhanced by incorporating vocational skills. However, enrolment in the school remained constant at the 1990 level of thirty students.

Private education

The government encourages the development of the private sector in order to alleviate some of the resource problems and admission pressures. Nurseries and day-care centres have been established in urban areas especially in Thimphu, the capital. Since 1990, seven of them have been initiated. However, involvement of the private sector in primary education is almost insignificant. In 2002, there were 14 private schools out of which 9 covering nursery and primary education and 5 covering the secondary



education level (IX-XII). All but two higher secondary schools are located in Thimphu and Phuntsholing, the biggest urban centres in the country.

Means of instruction, equipment and infrastructure

In order to make education accessible to everyone, free tuition, textbooks, sports items, meals and boarding facilities, where required are provided by the government. The Government also provides free stationery to its rural schools. This is supported by appropriate contributions from the parents to make education services possible and to also engender a sense of participation amongst the communities at large. Rural communities contribute to the building and maintenance of their schools. Where there is feeding project, they also contribute to part of the feeding costs. In addition, a nominal admission fee of NU5 is charged for every child enrolling at PP. Students are also required to contribute towards a school development fund at the rate of NU30 per annum for primary schools, NU100 for lower secondary schools and NU200 for middle and higher secondary schools.

A large number of additional classrooms, science and library blocks and few multi-purpose halls have been built by the Dzongkhags. In addition the following facilities have been built through various projects:

- Five new schools have been completed as spill over from the 8th Plan through the World Bank project
- All the 10 schools to be built under the GOI are awarded and are in various stages of completion
- Two of the 5 JICA schools are also under construction and are expected to be completed beginning 2007.
- One of the 29 schools under World Bank project has been completed and 11 are under construction.
- The investments in the construction of schools have to be substantial.

In the non-formal education programme the community assumes a large responsibility in ensuring the availability of school equipment and infrastructure. Contributions include the construction of school buildings, teachers quarters, hostels and dining halls as well as repairs and maintenance of the structures, transportation of goods and materials for the school and contribution to school feeding.

Adult and non-formal education

Before 1990, no literacy surveys had been carried out in Bhutan. An estimate points to a figure of 35% in 1990. The non-formal education (NFE) programme was conceived as an alternative educational channel to help early school drop-outs, young men and women acquiring literacy skills. In 1990, the programme was initiated on an experimental basis and, because of limited human and material resources, it was implemented on a very modest scale, targeting population groups that had already expressed a demand for such education and using facilities and services of the existing formal education system. Apart from the benefits of the physical infrastructure, this also enabled to draw on other resources, such as teachers and library facilities. The



first structured curriculum for the NFE programme was drawn up in 1992. It was designed to meet three broad objectives:

- to provide literacy training in *Dzongkha* (national language) to both men and women who did not received such training through the formal education system;
- to provide functional and basic life skills related knowledge;
- to provide a post-literacy and continuing education programme to help establish a literate society.

The NFE programme now has a structured curriculum as well as reading and learning materials to support it. A total of thirty readers have been developed on a wide variety of subjects. The programme is divided into three levels, ranging from basic literacy skills to more complex skills. The duration of the course ranges from six to twelve months. By the end of the course, participants are able to read and write and do simple, everyday arithmetic operations. They also acquire basic knowledge on health, hygiene, family planning, agriculture, forestry, environment, culture and tradition.

From six centres in 1992, the programme has now expanded to fifty-six centres. Annual enrolment has increased from 300 learners in 1992 to 2,091 in 1999. At the end of 1999, a total of 10,633 learners had gone through the programme, of whom 5,000 (or 60%) are expected to have acquired basic literacy skills. It should also be noted that over 70% of the participants are women.

A comprehensive evaluation of the NFE programme was conducted by the Division of Education in 1999. A total of 1,556 persons from eighteen *Dzongkhags* were interviewed and 600 were tested on functional literacy/knowledge. The main findings of the study showed that NFE participants could fill out forms, read envelopes and sight words more easily, while non-participants could not perform any of these functions. Participants scored twice as high as non-participants in functional knowledge on health, hygiene and sexually transmitted diseases and in performing simple arithmetic operations.

Since 1996, post-literacy programmes have been introduced as an effort to help neo-literates retain and enhance their literacy skills. A curriculum has been designed in three different packages covering broad areas related to functional literacy, arithmetic, health care, agriculture, animal husbandry, environment, technical courses and value education. Each package takes six months to complete. A total of thirty readers and workbooks have also been designed. These materials were developed in workshop settings involving government staff from different ministries such as Agriculture, Health and the National Environment Commission.

A total of 333 participants have enrolled in eleven centres. To help promote the programme, two pilot Community Learning Centres (CLC) have been established and more CLCs are expected to be established within the next five years.



Post-literacy programmes are not confined to those who have passed the basic literacy programme. They are also accessible to those who have received literacy training through the monastic education system as well as the formal education system such as school drop-outs. Like the basic literacy classes, the post-literacy programme uses the formal schooling facilities and community learning centres, including its teachers and library resources.

Creating a pool of competent NFE teachers is another important component towards making the programme successful. The majority of teachers are primary school teachers, trained to deliver the formal education curriculum, with little knowledge of adult learning. Therefore, the Division of Education organizes short training programmes to provide these teachers with special skills required to cope with the NFE curriculum and teaching adults. The government has so far trained a total of 360 teachers through these programmes, introduced in 1994.

One of the strategies adopted by the government to ensure that NFE programmes make a significant impact in reducing illiteracy has been to have communities initiate the programme themselves. This ensures that literacy programmes are made available to communities really interested in participating in such programmes, thereby enhancing co-operation and thus higher success rates.

The Division of Education established a Youth Centre in Thimphu, in May 1996, to cater to the needs of growing numbers of youths and adults. The centre aims not only at providing recreational facilities but also at providing skill-based literacy programmes for self-employment such as computer literacy, tailoring, knitting, house wiring and painting. The courses are being certified to increase employment opportunity. The centre is also initiating club activities such as visual arts, youth environment education, sports, languages and yoga. In the future, it plans to open centres in all districts to carry out similar activities.

The Basic Skills Development Programme was initiated in 1997 by the Technical and Vocation Education Section. It is targeted at both in- and out-of-school youths as well as adults and aimed at enhancing dignity of labour, promoting civic responsibilities, engaging in self-supporting economic activities and encouraging lifelong learning. For students, the activities are organized in the form of school clubs where a teacher takes the lead role in providing essential guidance. Tools and equipment are provided by the government. A total of 563 people including students, teachers, youths, villagers and support staff of schools have been trained in various occupational skills, such as plumbing, house wiring, construction carpentry, furniture making, hair cutting, masonry and gardening.

Instituted early in the 1970s, the Agricultural Extension programme is seen as playing an important role in helping improve farming practices and management of farming resources. The knowledge and skills are disseminated through exhibitions, demonstrations, farmer's training courses, study tours and information leaflets. A Farmer-Extension Communication Support Unit has been set up in the Ministry to produce leaflets, booklets, posters and charts for general distribution to extension agents and farmers. Between 1992 and 1997 about 59,789 farmers were trained on improved farming and livestock rearing techniques. Study tours were organized for 1,210 farmers and 64 exhibitions were held throughout the country. The programme is



considered successful and it has been observed that farmers are growing improved seed varieties and cash crops and rearing more cross-bred cattle leading to higher income generation.

To enhance vocational skills and promote entrepreneurship, the Ministry of Trade and Industries has set up an Entrepreneurship Promotion Centre in 1991. The centre also offers basic skills training courses for school drop-outs, unemployed youth and villagers. Some of the courses offered by the centre are tailoring and design, basic plumbing, basic hair cutting, electrical house wiring and cuisine preparation. The majority of trainees are women. In addition, the National Women's Association of Bhutan has trained many women in income-generating skills such as weaving, knitting and tailoring.

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. While the institution of the modern education system has pushed this programme to the background, it is still crucial in providing education to those who opt to take up monastic and ecclesiastic calling. In the Bhutanese context, such decisions are made quite early in life and a significant proportion of the population continue to be beneficiary of this form of education. It was estimated that in 1990, at least 15,000 monks and *gomchens* (lay monks) were enrolled in monastic schools. Although no direct investments were made for this programme, the government nevertheless recognized the importance of this form of education in complementing the efforts of the modern education system.

There are numerous types of programmes provided by different monastic institutions. The most important is the programme which is directly administered by the Central Monastic Body. While Tashi-Chhodzong remains the headquarters, this monastic order commands similar institutions in all the twenty *Dzongs*. These institutions also provide patronage to numerous *Gomdeys* (Lay monk's monasteries), *Drubdeys* (Meditation centres), *Shedras* (School for language and arts), *Lobdras* (Monastic schools) and nunneries. It is estimated that enrolment in these institutions amounts to 5,289 students.

A less well-organized institution 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 indicate that there are about 2,000 monasteries and temples spread throughout the country. Even assuming a modest number of five *gomchens* in these places, one would get to a total of 10,000 throughout the country. In addition, there are nunneries with an estimated enrolment of 500 nuns.

Teaching staff

The education system in Bhutan has historically relied heavily on expatriate teachers. In 1991, of the 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 National Institute of Education (NIE) offers a three-year Bachelor of Education degree course for Grade XII graduates and a one-year teacher training programme—Post-Graduate Certificate in Education—for candidates who already have a bachelor's degree either in humanities, commerce or science. The two-year Primary Teacher Certificate course is for Grade X 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 class X to XII, 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 are being enhanced. The 9th plan investment in the expansion and improvement of infrastructural facilities in the two NIEs amounts to NU206.123 million. When complete, this will enhance the capacity of NIE Paro from 281 in 2002 to 1,083 in 2007, and NIE Samtse from 344 in 2002 to 605 in 2007. The teacher education curriculum is also being reviewed and improved.

A comparison of the teacher's profile in primary schools in the period 1991–98 indicates a marked improvement in the qualifications of teachers. In 1991, 28% of them were untrained, while in 1998 they were only 10%. The proportion of female teachers improved marginally during the same period. Compared to 560 female teachers (or 28.9%) in 1991, there were 692 (or 31.7%) female teachers in 1998.

A significant effort has also been made to enhance the knowledge and skills of teachers through in-service training programmes. A comprehensive system of updating and keeping teachers abreast about the changes in curriculum and development issues has been instituted at the national and school levels. A system for the *Dzongkhag* level was also tried out for two years, but this was abandoned due to difficulties for *Dzongkhags* to mobilize human and financial resources. Each year, over 1,000 teachers (over half of the total teaching force) are engaged in national workshops. These workshops are continued at the school level in the form of School-Based In-Service Programmes (SBIP), during which the new methods and information are disseminated to the other teachers. SBIP are also an important forum where teachers can share experiences with their colleagues.

Furthermore, a distance education programme also been instituted for in-service teachers to upgrade their professional and academic knowledge. Instituted in 1995, the programme at present has an enrolment of sixty teachers.

A recent survey conducted by the Curriculum and Support Section of the Division of Education shows that, generally, teachers are now more prepared to provide better quality teaching. While there is no baseline survey for 1990/91 to provide a comparative development scenario, the survey results of 1998 provide a very positive response of teachers on their preparedness for school.

Professional support to schools and teachers is another important component which is crucial for improving the teaching/learning processes in the schools. The *Dzongkhag* Education Officers (DEOs) and the School Inspectors have always been



responsible for providing such crucial support. However, because of the lack of adequate staff, this has been one of the most difficult and perhaps neglected aspects of the educational programme in Bhutan. For example, a DEO does not even have an assistant to help him/her in his/her tasks, which also include planning, administration as well as looking after new school construction programmes. Similarly, there are only ten officers in charge of the Inspectorate.

A far reaching decision made recently in this regard has been to change the image of the Inspectors and their title to Education Monitoring Officers (EOMs). In line with this, EMOs also receive help from qualified teachers and professionals who are appointed as ‘focal persons’ to assist in their work. In 1998, there were seven focal persons while in 1999 this has been increased to twenty-one. These teachers will be able to help the DEOs and the EMOs to guide and support other teachers in their respective localities.

Educational research and information

Information is not available.

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