EDUCATION IN THAILAND 2007



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PREFACE

The Office of the Education Council under the supervision of the Ministry of Education takes great pleasure in presenting a national report on educational development, **Education in Thailand 2007.** The report will also be made available at http://www.onec.go.th.

This publication gives an overview of Education in Thailand in terms of general background, ranging from the governmental and administrative structure to the educational administration and management systems. It also summarises educational reform in progress, ranging from development of teaching-learning to the outcomes of education and learning. It is hoped that the information provided will foster a comprehensive understanding of educational development in Thailand and promote international cooperation and exchange in education.

The Office of the Education Council would like to express appreciation to the advisors to this report for their valuable suggestions and comments. Our gratitude is also extended to concerned agencies for providing us with valuable information pertaining to their contributions to educational reform. To name a few, such agencies include the *Office of the Permanent Secretary*, the *Office of the Basic Education Commission*, the *Office of the Vocational Education Commission*, and the *Office of the Higher Education Commission*. We look forward to their continued cooperation in the years to come.

Amoung Chartaranich

Amrung Chantavanich, Ph.D. Secretary-General The Education Council

EXECUTIVE SUMMARY

Education in the modern world is required to provide individuals with learning skills, self-management ability, problemsolving skills, ICT literacy, language proficiency and the ability to work with others.

At a national level, it is imperative that all individuals have access to lifelong learning and be equipped with the skills necessary for success in this knowledge-based economy and society. Education plays a critical role in generating lifelong learning skills to allow workers to adapt to new paradigms of work in the global marketplace.

Apart from leading to the competitive advantages of workforce development for the economic productivity of a country, quality education should also address global concerns, such as conservation and preservation of the environment and reduction of global warming. Through education, individuals are allowed to reach their highest potentials, pursue careers of interest and develop themselves in cooperation with other individuals, communities and countries.

As an attempt to strengthen the human resource base of Thailand and support overall development of the Thai people, the 1999 National Education Act, a master legislation on education in the country, has placed the holistic reform of education on Thailand's national agenda. This legislation continues to be a force in Thailand's educational system, and its effects will extend well into the future.

The report "Education in Thailand 2007" is the ninth in a consecutive series reflecting general background and considerable progress in educational development in Thailand. It covers educational reform in progress, outcomes of education and learning, highlights of current efforts, and future perspectives regarding educational development in Thailand.

Comprising four chapters, Part I of this publication provides general background on education in Thailand in terms of government and administrative structures; educational systems, standards and quality assurance; the educational administration and management and participation in educational provision; and the decentralisation of power in educational administration.

Part II comprises six chapters reflecting educational reforms in progress, including development of teaching and learning; development of teachers, faculty and educational personnel; resources and investment for education; information and communication technologies in education; access to education, participation and progression; and the outcomes of education and learning.

Highlights of current efforts and future perspectives are set forth in PART III. Issues covered include international education and international cooperation on education; promotion of mathematics, science and language education; integration of the Sufficiency Economy Philosophy into education; promotion of morality-based knowledge; inclusion of Thai local wisdom in education; education for peace and harmony; inclusion of a global dimension at the school level; and educational quality development. The future perspectives focus on long-term plans and strategies in basic, vocational and higher education.

The Ministry of Education dedicates its efforts toward the success of educational reform, with the aim to promote quality education for all, leading to a better quality of life for the Thai people and the increased competitiveness of the country. Increased efforts have been made to inculcate awareness of environmental conservation and preservation in Thai children and youth. The key success factor in this regard is the participation, cooperation and support from national and international agencies as well as all stakeholders and members of Thai society.

Office of the Education Council
July 2007

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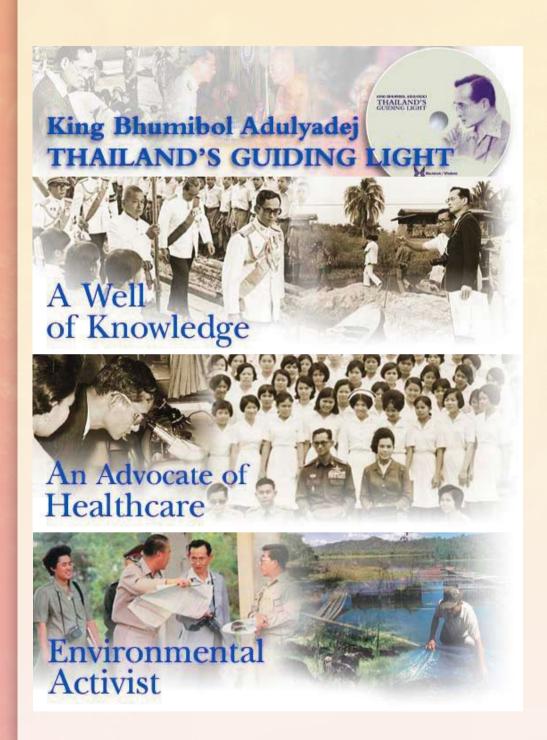
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PART I GENERAL BACKGROUND

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Chapter 1

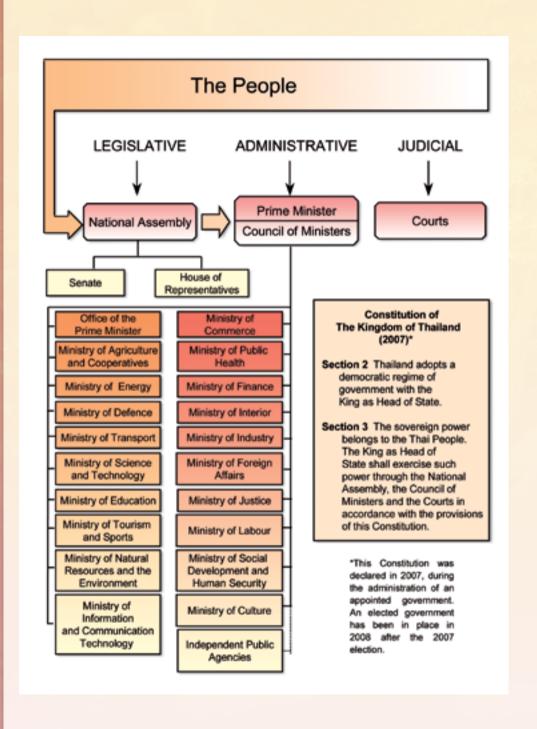
Government and Administrative Structure

The provisions relating to constitutional government and monarchy laid down in the 2007 Constitution specified three basic concepts regarding the governmental structure of Thailand.

- First, the monarch is regarded as Head of State, Head of the Royal Armed Forces and is a Buddhist but upholder of all religions.
- Second, a bicameral National Assembly, which is comprised of Members of the Council of Ministers and Members of the Senate, administers the legislative branch.
- Third, the Prime Minister, as head of the government and chief executive, oversees the executive branch, including the Council of Ministers, which is responsible for the administration of 19 ministries and the Office of the Prime Minister.

Figure 1.1 presents the organisational structure of the Royal Thai Government following reform of the bureaucratic system in 2002.

Figure 1.1 Organisation of the Royal Thai Government





Within the Ministry of Education, three following departments previously under its supervision prior to the bureaucratic reform are now under the supervision of other ministries. The Department of Physical Education was moved to the Ministry of Tourism and Sports. The former Office of the National Culture Commission has been upgraded to the Ministry of Culture. At present, religious affairs are under the auspices of two agencies, the Department of Religious Affairs under the *aegis* of the Ministry of Culture, and the Office of National Buddhism, an independent public agency directly under the Prime Minister.

The Royal Thai Government attaches great importance to educational provision and promotion. It is hoped that an increasing educational access and quality will enable Thai people to pursue lifelong learning as well as to think critically, make rational judgments and live in harmony with other members of society.





Chapter 2

Educational System, Standards and **Quality Assurance**

Under the present education system, various types and methods of learning are offered to learners regardless of their economic, social and cultural backgrounds. Education approaches are classified as formal, non-formal, and informal. All types of education can be provided by educational institutions as well as learning centres organised by individuals, families, communities, community or private groups, local administration organisations, professional bodies, religious institutions, welfare institutes; and other social institutions.

2.1 Types of Education

2.1.1 Formal Education

Formal education specifies the aims, methods, curricula, duration, assessment, and evaluation conditional to its completion. Through both public and private bodies, formal education services are mainly provided to those within the school system, at both basic and higher education levels, and in both general and vocational streams.

Formal education services in Thailand are provided in various formats for several target groups, including: (1) mainstream education, in both general and vocational streams, provided for general students in regular schools; (2) basic education for children with special educational needs including special education for gifted and talented students; special education for students with disabilities provided by special schools, special centres and inclusive schools; and welfare education for disadvantaged students provided by Welfare Schools and Border Patrol Police Schools; (3) education for ecclesiastics and educational provision by several religious institutions; (4) specialised education provided by specific agencies other than the Ministry of Education; and (5) international education provided by using languages other than Thai (generally English) as a medium of instruction.

This chapter covers only the first 2 types of formal education. Three other types of formal education will be mentioned in Chapters 3 and 11 respectively.

1. Mainstream Education

Mainstream education is provided for general students in regular schools in both general and vocational streams. Formal general education is provided at all levels, from pre-primary to higher education while the formal vocational education is provided only at some levels, from upper secondary education to higher education. In the academic year 2006, there are approximately 14 million students in formal schooling at all levels of education.

At present, the teaching-learning activities of basic education in the general stream follows the 2001 Curriculum for Basic Education (Grades 1-12); and the 2003 Curriculum for Pre-primary Education while the teaching-learning activities of basic education in the vocational stream follows the 2002 Curriculum for Vocational Education.

Organised for the 3-5 age group, the 2003 Curriculum for Pre-primary Education focuses on preparing children in terms of their physical, intellectual, emotional/mental and social readiness.

The 2001 Curriculum for Basic Education covers 12 years of basic education (Grades 1-12), and is divided into four three-year stages, consisting of 1,000-2,000 hours per year. In this curriculum, the knowledge and skills specified in Section 23 of the National Education Act have been grouped into eight subject areas: Thai Language; Mathematics; Science; Social Studies, Religion and Culture; Health and Physical Education; Art; Career/Technology-Related Education; and Foreign Languages. Activities that focus on responding to the learner's specific interests are also included.

In the general stream of basic education, career and technology-related education is offered to school children at both the primary and secondary levels to provide them with work experience and basic knowledge for career preparation and technological applications.

Starting at the upper secondary level, Technical and Vocational Education and Training (TVET) in Thailand follows the 2002 Curriculum for Vocational Education (at the lower certificate and associate degree levels). Both levels focus on competency and specify the standards of knowledge, skills, attitudes, and personal attributes required by students in their future careers.

The standards in the mentioned Curriculum cover nine fields, comprising trade and industry, commerce, arts and crafts, home economics, agriculture, fisheries, business and tourism, textiles, and ICT. Students studying in these fields will have an opportunity to take part in hands-on training in cooperating factories or companies for at least one semester. To expand opportunities for students, a number of entrepreneurs and educational institutions are offering a dual education programme, where students engage in on-the-job training for half of their total study period.

Formal technical and vocational education and training is conducted at three levels: upper secondary, leading to the lower certificate of vocational education; post-secondary, leading to a diploma or the associate's degree in vocational education; and at university level, leading to a degree.

According to the 1999 National Education Act, technical and vocational education and training are provided in educational institutions belonging to both the public and private sectors, enterprises, or those organised through co-operation of educational institutions and enterprises.

In summary, vocational education is provided through the normal programme, the dual-vocational training (DVT) programme, and the credit accumulative programme.

In addition, special vocational education is offered in Sports Schools under the supervision of the Ministry of Tourism and Sports, and in Dramatic Arts and Fine Arts Colleges under the supervision of the Ministry of Culture.

2. Basic Education for Children with Special Educational Needs

Since promulgation of the 1999 National Education Act, greater attention has been focused on children having special educational needs, with efforts given to the development of education for the gifted, the disadvantaged and the disabled.

The Ministry of Education has announced criteria and procedures for providing facilities, media, services and other forms of educational aid, as well as for budget allocations in these areas.

• Special Education for Gifted and Talented Students

If full and appropriate support is given, gifted and talented persons will become invaluable national resources generating tremendous benefit to the country. Thailand attaches great importance to diversified and commensurate development of these persons.

The 1999 National Education Act specifies that education for specially gifted persons will be provided in appropriate forms in accord with their competencies. The Act also states the significance of providing suitable curricula and distributing budgetary allocations in line with the requirements for such education.





Support given to gifted and talented persons in Thailand may be divided into the eight following categories:

- 1) Establishment of Special Schools for Gifted Persons: Among 26 Special Schools for Gifted Persons that were set up, the number of schools specially arranged for sciences and mathematics, sports and music is 13, 11 and 2, respectively.
- 2) Provision of a School within the School Programme: Regular schools are required to set up special classes, develop specific curricula, and revise the teaching-learning process and assessment for gifted persons in various fields, including language, science and mathematics. At present, around 150 of both public and private schools provide such a programme.
- 3) Provision of special activities, tuition sessions and competitions: Several public and private agencies, including 1) the Promotion of Academic Olympiads and Development of Science Education Foundation under the Patronage of Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra; 2) the Institute for the Promotion of Teaching Science and Technology (IPST); and 3) the National Science and Technology Development Agency (NSTDA), organise special activities, tuition sessions and competitions for gifted persons, such as the Academic Olympiad Camps, science camps, exploring centres and competitions in science or mathematics.
- 4) Provision of Advanced Placement Programme: This programme is based upon the cooperation between secondary

schools and universities that allow secondary students to take courses organised for the first-year university students and receive credits which can be accumulated when they further their study at the bachelor degree level.

At present, four participating universities allow 1,000 students from 27 schools to take courses related to various subjects, including Physics, Chemistry, Biology, Mathematics, Thai and English. So far, more than 400 secondary students have passed the examinations.

- 5) Provision of Specific Curricula: Some universities provide specific curricula which focus on research studies in specific areas or an Honors Programme.
- 6) Research Studies and Development of the Body of Knowledge: The Office of the Education Council has conducted several projects on research and development aimed at developing curricula for gifted and talented children in the School within the School Programme. The findings from the research studies as well as the body of knowledge were integrated into the strategic proposal to develop the gifted and talented children (2008-2012) to be proposed to the Council of Ministers in the very near future.
- 7) Establishment of Centres and Institutes for Research and Development of Gifted Persons: Such Centres and Institutes were established by several agencies such as the Faculty of Education of Chulalongkorn University, and the Faculty of Education of Srinakharinwirot University.
- 8) Provision of Scholarships in Thailand and in Foreign Countries: The scholarships offered include the 'Development and Promotion of the Scientific and Technologically Talented' Project; the National Science and Technology Development Agency (NSTDA) Project; the Academic Olympiads Project; and other scholarships offered by several public and private agencies.

In 2004, the Royal Thai Government established the National Centre for the Gifted and Talented under the Office of Knowledge Management and Development, a public organisation under the aegis of the Office of the Prime Minister.



In one of the extended tours to visit people in rural and remote areas, His Majesty the King granting scholarships to the disadvantaged children, including children of the minorities.

The Centre was later amalgamated with the National Institute for Brain-Based Learning and renamed as the Institute for Gifted and Innovative Learning (IGIL). The Institute sets up development standards and models to develop, promote and support the potential of gifted persons.

In line with Section 32 of the 2003 Ministry of Education Bureaucratic Administration Act, a Ministerial Rule was issued. Under the Ministerial Rule, a Board chaired by the Minister of Education and joined by concerned agencies was appointed to be responsible for the promotion of education for gifted persons.

It is expected that the Board, together with the Institute for Gifted and Innovative Learning will be able to formulate policies, deal with administrative work, provide financial support and coordinate between the agencies concerned, to develop the gifted persons, which in turn will be beneficial to the country in the long run.

• Special Education for Disadvantaged Students

Several agencies are attempting to provide education for those who are socially and/or culturally disadvantaged. These

include the Ministry of Education, the Border Patrol Police Bureau and the Department of Social Development and Public Welfare (previously known as the Department of Public Welfare). In addition, non-governmental organisations such as Suan Kaew Monastery Foundation, the Foundation for Children and the Rajprachasamasai Foundation also play a very important role in educational provision for the disadvantaged students.

Most disadvantaged students study in a number of public regular schools, called *Inclusive Schools* while the rest study in *Welfare Schools* and *Border Patrol Police Schools*.

The Welfare Schools offer education for disadvantaged students who are deprived of the opportunity to attend regular schools. Free education, food, clothing, equipment, textbooks and other necessities are provided, and in most cases accommodation is also provided. Special vocational training relevant to future employment in the locality of a particular school is usually included.

The Border Patrol Police Schools are under the supervision of the Border Patrol Police Bureau, Royal Thai Police. So far, the Border Patrol Police Bureau has established 714 Border Patrol Police Schools. Normally, a Border Patrol Police School will be transferred to the Ministry of Education on the condition that there are permanent school buildings, a sufficient number of students and a better quality of life of people in the nearby area. Out of 714 Border Patrol Police Schools, 473 schools were transferred to the Ministry of Education, and 52 schools were abolished.





As for the disadvantaged students in Inclusive Schools and Welfare Schools under the supervision of the Office of the Basic Education Commission, they are divided into 10 types comprising (1) children forced to enter the labour market; (2) children who are sex workers; (3) deserted children; (4) children in the Observation and Protection Centres; (5) street children; (6) children affected by HIV/AIDS; (7) children of minorities; (8) physically abused children; (9) impoverished children; and (10) children affected by narcotic drugs. (The number of these disadvantaged students, classified by type and gender, is shown in Chapter 10.)

• Special Education for Students with Disabilities

The budget for students with disabilities was allocated by the Office of the Basic Education Commission from two main sources: the regular budget and the Educational Fund for Students with Disabilities. Formal education for students with disabilities is provided in Inclusive Schools as well as Special Schools.

In accordance with 1999 National Education Act, people with disabilities are entitled to receive all levels of education. The Bureau of Special Education Administration classified children with disabilities into 9 types in accordance with their disabilities. These include: (1) hearing impairments, (2) mental impairments, (3) visual impairments, (4) physical impairments or health-related impairments (5) learning disabilities (LD), (6) autism, (7) emotional and behavioral disorders, (8) speech and language disorders and (9) multiple disabilities. (The number of students with disabilities, classified by types of disabilities and levels of education, is shown in Chapter 10.)

Inclusive Schools: Inclusive Schools are regular schools that are willing to accept children with disabilities. There are currently 18,618 Inclusive Schools. In providing education for the disabled, these schools are also assisted by the Special Centres and Special Schools in terms of teachers, training, materials and facilities and coordination with concerned agencies such as the National Electronics and Computer Technology Centre, the Ministry of Interior and the Ministry of Social Development and Human Security.

Special Schools: Special Schools are specially arranged for students with disabilities. There are currently 43 special schools which are classified into four types of disabilities as follows: (1) Special Schools for those with Mental Impairments; (2) Special Schools for those with Hearing Impairments; (3) Special Schools for those with Visual Impairments and (4) Special Schools for those with Physical Impairments. In practice, however, children with all types of disabilities will be accepted in these schools. Special schools are essential for students with disabilities who need accommodations.



During a visit to
a rural
community,
His Majesty
the King
giving positive
encouragement
to a
disabled child.



2.1.2 Non-Formal Education

Non-formal education services are provided by both public and private bodies. Under the supervision of the Ministry of Education, the Office of the Non-formal and Informal Education is the main agency in charge of non-formal and informal education. This Office offers services to various target groups through traditional methods and through e-Book, e-Library and e-Learning.



Primarily, the services provided by the Office of the Non-formal and Informal Education target primarily those outside the school system, *i.e.* infants and pre-school children, the schoolage population who have missed out on formal schooling, and the over-school-age population. Currently, such services have been expanded to cover specific target groups, including prison inmates, the labour force, the disabled, conscripts, agriculturists, the aged, Hill Tribes people, local leaders, slum dwellers, Thai Muslims, religious practitioners, those having no opportunity to further their studies in formal schooling after compulsory education, Thai people in foreign countries, and other special groups, as well as students in the formal school system.

The Office of the Non-formal and Informal Education offers three main types of non-formal technical and vocational training programmes:

1) Non-Formal Programme for Certificate in Vocational Education: Non-formal education activities leading to the Certificate in Vocational Education are provided through distance learning to lower secondary school graduates, both the unemployed and those working in public organisations and private enterprises. This programme requires at least three years of study, except when there is a transfer of academic performance or experience;

- 2) Short-Course Vocational Training Programme: Short-course vocational training is provided in many areas by both public and private institutions and agencies. These courses are offered from three hours to one year and are designed to serve the needs for self-employment and to articulate with formal programmes in order to serve lifelong learning; and
- 3) Interest Group Programme: Teaching and learning activities are organised according to the individual needs and interests of the general public. Those having the same interests can form a group of five to 15 persons and receive training of up to 30 hours.

Generally, the following non-formal educational services are provided by the Office of the Non-formal and Informal Education: Provision of Non-Formal Education for Pre-School Children; Provision of Fundamental Education for Literacy; General Non-Formal Education; and the Non-Formal Technical and Vocational Education and Training Programme. In addition, several agencies responsible for education services, welfare and public services also provide vocational training activities concerned with quality of life improvement.

The Bureau of Special Education Administration under the supervision of the Office of the Basic Education Commission, the Ministry of Education is responsible for 76 Special Centres in 76 provinces. The Special Centres render services at the Centres; in Inclusive Schools; at home; and in hospitals. They also organise meetings/seminars to provide knowledge for parents of the disabled and relevant agencies; and conduct research and formulate the curriculum for short-term training for the disabled.

As mentioned above, non-formal education is also specially arranged for children with disabilities. Apart from the Ministry of Education, special education for the disabled students is provided by several other agencies including the Department of Social Development and Public Welfare under the supervision of the Ministry of Social Development and Human Security, as well as by some demonstration schools, municipal schools and private foundations. Moreover, some hospitals also organise classes for children with disabilities resulting from chronic conditions.



2.1.3 Informal Education

Informal education enables learners to learn by themselves according to their interests, potential, readiness and the opportunities available from individuals, society, environment, media or other sources of knowledge as follows:

- Informal education programmes provided by libraries, museums and science/technology centres, etc. as well as by mass media (radio, television, newspapers and magazines, etc)
- Informal education programmes of community learning networks i.e. community learning centres, village reading centres, sub-district health offices, sub-district agricultural offices, as well as natural learning sources in each community.
- Learning from various sources as follows: 1) local wisdom which includes culture and the body of knowledge in each community; 2) local media which plays an important role in passing on knowledge and social values through several kinds of performance; 3) families which are learning sources from birth for all people; and 4) networking through cooperative activities.

Several ministries are involved in providing informal education to promote lifelong learning, through information dissemination, educational activities or academic and professional programmes for different target groups relating to the responsibilities of each organisation.

New lifelong learning sources have been established, while existing ones have been improved and developed in accordance with Section 25 of the National Education Act, which requires the

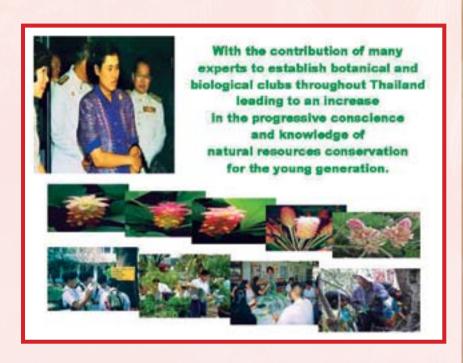
State to promote the running and establishment, in sufficient number and with efficient functioning, of all types of lifelong learning sources.

According to the Bureau of Educational Standards and Learning Development, there are approximately 3,200 learning sources in Thailand, comprising public libraries (864), museums (293), art galleries (21), zoological gardens (45), public parks (1,260), botanical gardens (70), science and technology parks, sports and recreation centres (91), national parks (95), and more than 450 other sources of learning. Efforts have been made to enable individuals to learn at all times and in all places through several sources.

Included among the new lifelong learning sources are:

- 1. The Office of Knowledge Management and Development, a public organisation under the aegis of the Office of the Prime Minister. At present, it comprises six separate entities namely 1) Institute for Gifted and Innovative Learning (IGIL); 2) Thailand Knowledge Park; 3) National Discovery Museum Institute; 4) Thailand Creative and Design Centre; 5) Thailand Centre of Excellence for Life Science; and 6) Centre for the Promotion of National Strength of Morals, Ethics, and Values: This centre has been established to promote morals and ethics through the interaction of public and private sectors throughout the country.
- 2. The National Science Museum Organisation, a state enterprise under the supervision of the Ministry of Science and Technology, operates the four following museums: 1) The Science Museum; 2) The Information Technology and Telecommunications Museum; 3) The Natural History Museum; and 4) The Environment and Ecology Museum.
- 3. The Bangkok Children's Discovery Museum, established by the Bangkok Metropolitan Administration in 2001 to help children develop their ideas and gain experience in adapting to an urban environment and the country's economic and social development.

Several new public libraries have also been established, and services in all libraries have been improved. For example, free internet service is provided in all libraries Chalermrachakumari libraries and other public libraries, while many higher education institutions are also developing e-libraries and living libraries.





Through the initiation of HRH Princess Maha Chakri Sirindhorn, several botanical gardens have been established to protect, explore, collect, plant, preserve, conserve and utilise local botanical species.

Supported by the Plant Genetic Conservation Project Office under the Royal Chitralada Palace, this activity involves the original natural forest and distributes plants throughout the country in all floristic regions outside the responsibility of the Royal Forest Department. Plants are distributed to government agencies, research centres, experiment stations, academy institutes, schools, temples or other areas where people come together to protect plant genetic.

Several other types of lifelong learning sources have also been renovated and improved, including museums and historical parks under the supervision of the Department of Fine Arts, arts and cultural centres, sports and recreation centres, as well as museums of Natural Science.

2.1.4 Linkage among Three Types of Education

The 1999 National Education Act acknowledges the importance of all types of education. Relevant agencies and educational institutions are therefore working to create links between formal, non-formal, and informal education systems. Credit accumulated by learners will be transferable within the same or between different types of education, regardless of whether the credits have been accumulated from the same or different educational institutions, including learning from non-formal or informal education, vocational training and work experience.

It is expected that access to education will be increased from the transfer of learning outcomes to and from all types of education. In so doing, credits can be accumulated and transferred within the same type or between different types of educational approaches and learning.

A more flexible educational system, with the ability to transfer learning outcomes and validate experience, will help increase access to and create links between all types of education. This will not only draw future generations of Thai people toward lifelong learning but also eventually lead to a learning and knowledge-based society. The reform of non-formal and informal education is necessary to cultivate the culture of lifelong learning and create a learning society.

2.2 Levels of Education

2.2.1 Basic Education

In 2002, in accordance with the National Education Act, 12 years of free basic education was made available to students throughout the country for the first time.

Basic education covers pre-primary education, six years of primary, three years of lower secondary, and three years of upper secondary education. The current compulsory education requirement covers six years of primary and three years of lower secondary education. Children are expected to be enrolled in basic education institutions from age seven through the age of 16, except for those who have already completed Grade Nine. Basic education is provided before higher education by the following institutions:

- Early childhood development institutions i.e. childcare centres, child development centres, initial care centres for disabled children or those with special needs and early childhood development centres operated by religious institutions or by other agencies.

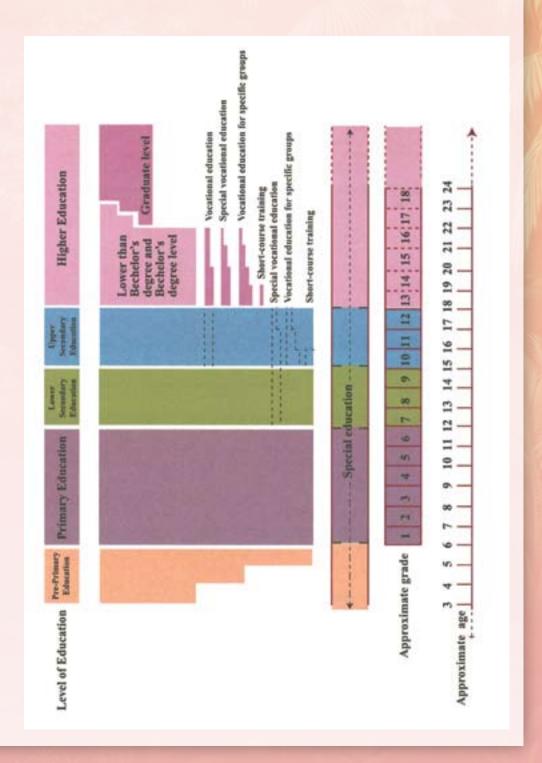


- Schools such as state schools, private schools, and those under the jurisdiction of Buddhist or other religious institutions; and
- Learning centres i.e. those organised by non-formal educational agencies, individuals, families, communities, community organisations, local administration organisations, private organisations, professional bodies, religious institutions, enterprises, hospitals, medical institutions, welfare institutes and other social institutions.

Organisation of the present school system is shown graphically in Figure 2.1.



Figure 2.1 Organisation of the Present School System



2.2.2 Higher Education

Higher education at the diploma, associate, and degree levels is provided in universities, educational institutions, colleges, community colleges, and other types of institutions.

A) Associate Degree or Diploma Level

Higher education at the associate degree or diploma level requires two years of study and is offered by Rajabhat Universities, the Rajamangala University of Technology, state and private vocational colleges, as well as colleges of physical education, dramatic arts and fine arts. The majority of courses offered are related to vocational and teacher education.

B) Degree Level

Programmes leading to a degree require two years of study beyond the diploma level, and four to six years of study for those completing upper secondary education or the equivalent.

- The first professional qualification is a baccalaureate, normally attained after four years of study. Five years of study are required in the fields of architecture, painting, sculpture, graphic arts, and pharmacy, with six years required for medicine, dentistry, and veterinary science. In some of these fields, additional study is required to allow for a *practicum* before professional qualifications are awarded.
- Advanced study of at least one but generally two years, combined with a thesis, leads to the award of a master's degree.
- A doctorate, requiring an additional three years of study following the master's degree, is awarded in some fields, while an advanced diploma or certificate, designed for students already possessing a degree or professional qualification, may be obtained after one or two years of course work.

Since the establishment in 1917 of Chulalongkorn University, Thailand's first tertiary institution, the number of higher education institutions has increased substantially, particularly within the past decade. There are currently 151 higher education institutions under the supervision of the Office of the Higher

Education Commission and 94 specialised institutions under the charge of other ministries and agencies.

In addition, 18 community colleges were set up in accord with a government policy prescribed in 2001. The mentioned policy supported the establishment of community colleges in provinces where other opportunities for higher education were not available, to offer the education and training necessary for economic and social development in those communities. Community colleges offer 2-year associate degree programmes suitable for professional development in areas relevant to local economic and social development needs. Several curricula are currently offered in associate degree programmes from community colleges.

2.3 Educational Standards and Quality Assurance

The purpose of establishing educational standards is to specify certain qualities in the provision of education, such as desired learner attributes, curriculum, and teaching-learning processes.

So as to ensure quality, institutions are expected to develop excellence within the domain of their regular activities and administrative tasks, whereby it is anticipated that educational quality will flourish. Improvement of quality will be beneficial to direct recipients of the service, including students and parents, as well as indirect recipients, such as employers, individuals, and society as a whole. To ensure improvement in the quality of education at all levels and of all types, two major tasks that need to be accomplished are the development of educational standards and the development of a quality assurance system.

There are currently three types of standards: national education standards, and standards for internal quality assurance and for external quality assessment.

2.3.1 National Education Standards

As specified in the 1999 National Education Act, the Office of the Education Council is responsible for proposing national education standards. Consequently, sets of standards were formulated by the Office in cooperation with the offices responsible for basic,

vocational, and higher education as well as the Office for National Education Standards and Quality Assessment.

With approval from the Council of Ministers on October 26, 2004, agencies providing education at all levels are expected to abide by the national education standards, which are comprised of three categories:

- I. Desirable characteristics of the Thai people, as both citizens of the country and members of the world community, consist of five indicators: 1) sound physical and mental health; 2) required knowledge and skills sufficient for leading a meaningful life and social development; 3) skills in learning and self-adjustment; 4) social skills; and 5) righteousness, public-mindedness, and consciousness of their citizenship of Thailand and the world
- II. Guidelines for educational provision consist of three indicators: 1) development of a diversified curricula and ambiance enabling learners to develop themselves in line with their natural inclinations and to the best of their potential; 2) systematic and effective development of administrators, teachers, faculty staff and educational personnel; and 3) practice of school-based management.
- III. Guidelines for creating a learning society/knowledge society consist of three indicators: 1) provision of academic services and establishment of cooperation between educational institutions and community so as to transform educational institutions into a learning society/knowledge society; 2) research and study, promotion of and support for learning sources and mechanisms; and 3) generation and management of knowledge for the benefit of all levels and components of the society.

The national education standards also serve as the basis for setting assessment standards of internal and external quality assurance mechanisms. At the moment, all agencies concerned have developed relevant educational standards.

2.3.2 Internal Quality Assurance

In 2003, the Ministry of Education announced relevant ministerial regulations for the system, criteria, and methods for internal quality assurance of basic and higher education institutions.

To serve as a basis for external quality assessment, all educational institutions follow guidelines for internal quality assurance standards developed by their supervising agency. Educational institutions are also required to implement an internal quality assurance system comprised of control, audit, and assessment.

In support of this effort, a number of activities have been carried out, including: developing personnel; implementing pilot projects; providing financial support; conducting, monitoring, and advisory tasks; and disseminating documents, media and equipment.

2.3.3 External Quality Assessment

External quality assessment of all educational institutions is conducted at least once every five years, with outcomes submitted to the relevant agency and made available to the general public. In conducting these assessments, the "Amicable Assessment Model" was employed by trained external assessors selected from qualified persons from private, professional or academic organisations.

The Office for National Education Standards and Quality Assessment (ONESQA) oversees external quality assessments of both basic and higher education institutions following standards relating to educational achievement (output/outcome); input/process; and efficiency in administration and leadership. Different sets of standards for external quality assessment are used at the basic and higher education levels.

Within the first round of external quality assessment (2001-2005) around 30,000 basic education institutions, 670 vocational education institutions and 300 higher education institutions were assessed. The second round of external quality assessment (2006-2010) has been carried out.



An effective educational system should prepare Thai people with necessary knowledge and skills so that they are able to pursue promising careers and thrive in the knowledge-based society. It is essential that further support and benefits be given to those providing education and improving educational standards and quality of educational institutions at all levels and of all types.

Chapter 3

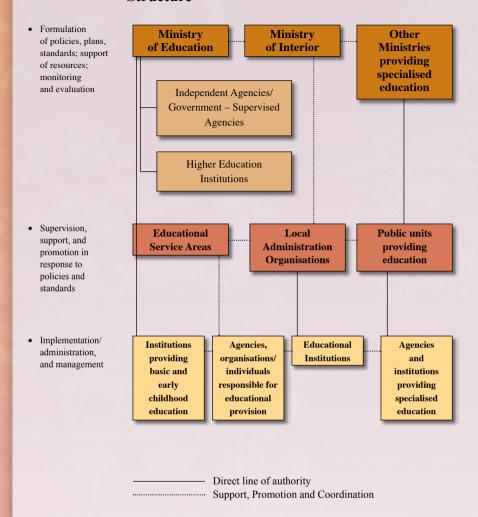
Educational Administration and Management and Participation in Educational Provision

Carried out in accordance with the 1999 National Education Act and the 2002 Bureaucratic Reform Bill, the major reform of educational administration and management has been the merging of 3 agencies, consisting of the Ministry of Education, the Ministry of University Affairs and the Office of the National Education Commission, into a single Ministry of Education.

The Ministry of Education is responsible for promoting and overseeing all levels and types of education under the administration of the state.

However, local education administration is under the supervision of the Ministry of Interior. In addition, other ministries undertake management of education in specialised fields or for specific purposes. (Figure 3.1)

Figure 3.1 Educational Administration and Management Structure



Conducted by the state, local administration organisations, and the private sector, educational administration and management in Thailand is thus classified into 3 categories:

3.1 Administration and Management of Education by the State

Education in Thailand is administered and managed by the government through central agencies, through educational service areas, and by educational institutions.

3.1.1 Administration at the Central Level

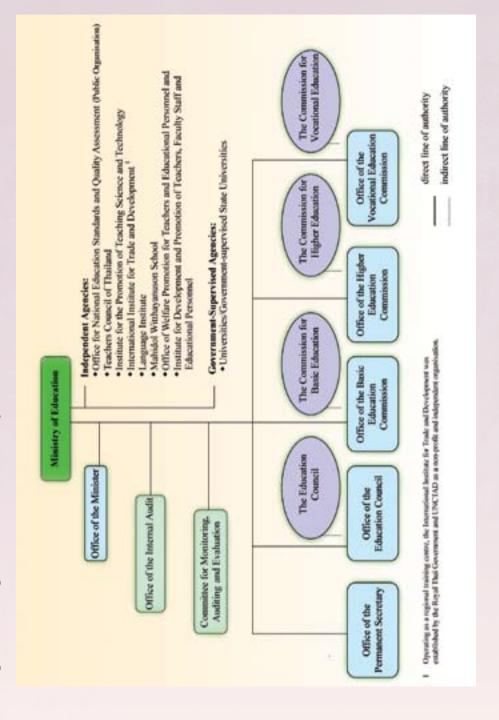
In accordance with the amendments of the National Education Act, the Ministry of Education is responsible for: promoting and overseeing all levels and types of education; formulating policies, plans and standards; mobilising resources for education; promoting and co-ordinating religious affairs, arts, culture, and sports relating to education; and monitoring, inspecting and evaluating educational provision.



The educational administration and management system at the central level is under the responsibility of five main bodies: 1) the Office of the Permanent Secretary (OPS); 2) the Office of the Education Council (OEC); 3) the Office of the Basic Education Commission (OBEC); 4) the Office of the Vocational Education Commission (OVEC); and 5) the Office of the Higher Education Commission (OHEC).

At the moment, the administrative structure at the central level is organised as presented in Figure 3.2.

Figure 3.2 Organisation of the Ministry of Education at Central Level

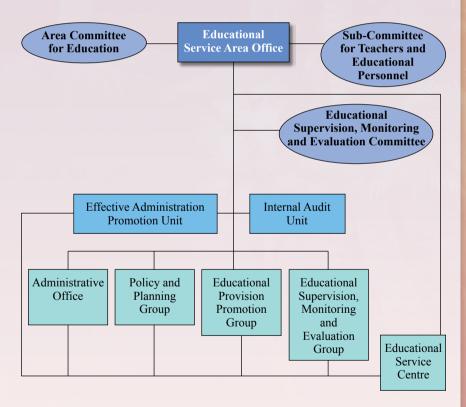


3.1.2 Administration in Educational Service Areas

Educational service areas were established in conformity with the requirement to decentralise authority for educational administration. In 2008, there are 185 educational service areas in 76 provinces, with 182 areas in the provinces and the remaining 3 in Bangkok.

Each educational service area comprises an Area Committee for Education, with its office responsible for approximately 200 educational institutions and a student population of 300,000 to 500,000. The current organisation of administration in educational service areas is shown in Figure 3.3

Figure 3.3 Organisation of Administration in Educational Service Areas



3.1.3 Administration in Educational Institutions

Educational administration and management in educational institutions can be divided into two categories:

1) Basic Education

Following the decentralisation of authority carried out by the Ministry of Education, administration and management relating to academic matters, budgets, personnel, and general affairs are now the responsibility of the institutions themselves. Oversight is through a 7-15 member board consisting of representatives of parents, teachers, community groups, local administration organisations, alumni, and academicians.

2) Higher Education

To improve the quality of higher education, state universities are moving toward transformation to state-supervised institutions that function as legal entities. Such a structure will enable each institution to develop its own administration and management system with greater flexibility and academic freedom under the supervision of the institutional council empowered by its own Act.

3.2 Administration and Management of Education by Local Administration Organisations

In accordance with the National Education Act, local administration organisations can provide education services at any or all levels commensurate with their readiness, suitability, and the requirements of the local area.

The Ministry of Education prescribes criteria and procedures for assessing readiness to provide education services, and assists in enhancing their capability in line with the policies and required standards. Additionally, the Ministry advises on the budgetary allocations provided by local administration organisations.

The local administration organisations in Thailand can be divided into 4 main types. As of 30 September 2007, there were 7,853 local administration organisations. Details regarding the types and number of these organisations are shown in the following table.

Table 3.1 Type and Number of Local Administration Organisations (2007)

Type of Local Administration Organisation	Number
Provincial Administration Organisations (excluding Bangkok)	75
Municipalities	1,276
Sub-District Administration Organisations	6,500
Special Local Administration Organisations (Bangkok Metropolitan Administration and Pattaya City)	2
Total	7,853

Source: Department of Local Administration, Ministry of Interior

In decentralising authority for educational provision from the Ministry of Education to local administrative organisations, some responsibilities not requiring assessment have already been transferred. These include tasks related to the supervision of sub-district libraries and pre-primary child development centres as well as the procurement of educational materials and supplementary food items, such as milk.

According to statistics of the Department of Local Administration, the number of child development centres established by local administration organisations increase from 1,782 out of 16,111 child development centres in 2006 to 2,774 out of 17,100 child development centres in 2007. Around 14,300 child development centres were transferred to local administration organisations from other agencies, including the Department of Community Development, the Department of Religious Affairs, and the Office of the Basic Education Commission.

In the Academic Year 2007, 750,563 children were cared for by 17,100 child development centres now under the supervision of local administration organisations in 75 provinces, excluding the Bangkok Metropolitan Administration.

In Bangkok, several local communities are encouraged to participate in creating pre-school child centres and to provide financial support, supplementary food, and personnel training.

In addition to child development centres, local administration organisations will eventually be responsible for institutions offering education at other levels. Nevertheless, according to the Office of the Education Council's Report on Educational Provision by Local Administration Organisations in 2007, around 2 percent, or only 164 of the 7,853 local administration organisations were supervising educational institutions, and only 981 educational institutions were under local supervision. (Table 3.2)

Table 3.2 Number of Educational Institutions under the Supervision of Local Administration Organisations (2007)

Type of LAOs	Number of LAOs in charge of Educational Institutions	Number of Educational Institutions under LAO Supervision
Municipalities	156	530
Pattaya City	1	10
Bangkok Metropolitan Administration	1	435
Provincial Administration Organisations	3	3
Sub-District Administration Organisations	3	3
Total	164	981

Source: Bureau of Policy and Planning, OEC

The capability of local administration organisations to provide different levels of education varies. The majority of schools under local administration supervision are primary level institutions. The total number of students in basic education institutions under the supervision of local administration organisations has increased steadily, from 700,270 students in 2,000 to 759,822 students in 2006.

In 2006, the average percentage of students in basic education institutions under local administration organisations was around 6.3 percent. (Table 3.3)

Table 3.3 Number of Students in Basic Education Institutions under the Supervision of Local Administration Organisations (Academic Years 2000-2006)

Lands of Education	Academic Years						
Levels of Education	2000	2001	2002	2003	2004	2005	2006
Pre-primary	151,944	152,651	148,297	141,110	139,011	142,264	146,859
Primary	494,255	509,777	522,134	526,625	528,602	523,869	518,841
Secondary	54,071	56,871	61,066	65,699	73,451	82,328	94,122
Lower Secondary	52,350	54,423	57,925	62,584	70,202	78,529	88,823
Upper Secondary	1,721	2,448	3,141	3,115	3,249	3,799	5,299
- General Ed.	1,033	1,645	2,238	2,320	2,531	3,095	4,224
- Vocational Ed.	688	803	903	795	718	704	1,075
Total	700,270	719,299	731,497	733,434	741,064	748,461	759,822
Percentage of the total number of students throughout the country	5.2	5.9	6.0	6.0	6.1	6.2	6.3

Source: Thailand Education Statistics Reports (2002-2006), OEC

A 15-year policy has been formulated to prepare local administration organisations to assume responsibility for provision of education. Issues addressed in the policy include: equal opportunity in basic education; administrative systems; teachers and educational personnel; and quality and standards commensurate with the readiness and suitability of local administration organisations as well as requirements of the local areas.

Except for the municipalities, most local administration organisations have not had experience in the provision of education, the Ministry of Education set criteria and methods to assess their readiness. In addition, the concurrence of administrators, teachers, educational personnel and boards of the basic education institutions that will be transferred was also included, in January 2006, as a special condition in the Ministerial Rule on the criteria and procedures for assessing such readiness.

3.3 Administration and Management of Education and Participation in Educational Provision by the Private Sector

The private sector is an important mechanism in the provision of education at all levels and of all types. In this Chapter, the participation of the private sector covers non-governmental organisations, private educational institutions, private enterprises, families, private entities and communities and religious institutions.

3.3.1 Educational Provision by Non-governmental Organisations

Both local and foreign non-governmental organisations make a major contribution to the provision of basic education. For example, several agencies, such as the Child Development Centres and the Council of Early Childhood and Youth Development Organisations, help provide non-formal pre-primary education.

Another example is the contribution of the Duang Prateep Foundation, established in 1978 and officially registered as a charity in Thailand. Its project on education covers kindergarten programmes, a special school for the hearing-impaired and education sponsorship. The Foundation now supervises 11 kindergartens in Bangkok slums and is viewed as the model in founding community kindergarten in slum areas. Thus far, the Duang Prateep Foundation has assisted in setting up 15 kindergartens in other slum areas as well as in poor villages in the Northeast. The kindergartens are administered by locally elected community councils and the Foundation's role is a supportive and advisory one.

3.3.2 Educational Provision by Private Educational Institutions

The state is responsible for overseeing administration and management as well as for monitoring the quality and standards of private educational institutions, both those providing general education and those offering vocational education. At present, most private institutions are proprietorial schools, with a few prestigious institutions managed by Christian denominations.

The number of private educational institutions providing formal basic education increased from 3,367 in 2002 to 3,805 in 2006. (Table 3.4)

Table 3.4 Number of Public and Private Educational Institutions Providing Formal Basic Education Provision (Academic Years 2002-2006)

Levels of	20	02	20	03	20	04	20	05	20	06
Education	Public	Private								
Pre-primary	42,068	2,685	44,804	2,692	44,572	2,838	45,900	2,821	44,280	2,923
Primary	31,386	1,617	31,070	1,619	30,880	1,763	30,736	1,803	30,568	1,907
Lower Secondary	9,868	587	9,719	594	10,123	652	10,087	922	10,112	1,012
Upper Secondary	3,177	520	3,218	518	3,107	532	3,130	752	3,172	805
- General Ed.	2,644	171	2,697	167	2,679	154	2,710	372	2,751	
- Vocational Ed.	533	349	521	351	428	378	420	380	421	383
Total	45,968	3,367	44,486	3,567	47,904	3,562	49,413	3,567	47,728	3,805

Source: Thailand Education Statistics Reports (2002-2006), OEC

When classified into levels of education, the proportion of private participation is highest at the upper secondary level (vocational stream) and at the primary level. The overall increase in private participation at the basic education level is quite small, from 14 percent in 2002 to 17 percent in 2006. (Table 3.5)

Table 3.5 Students' Proportion of Public to Private Participation in Basic Education Provision (Academic Years 2002-2006)

Levels of Education	Academic Years						
Levels of Education	2002	2003	2004	2005	2006		
Primary	85 : 15	85 : 15	84 : 16	83 : 17	83 : 17		
Lower Secondary	93 : 7	92 : 8	89 : 11	91 : 9	88 : 12		
Compulsory Education	88 : 12	87 : 13	86 : 14	86 : 14	84 : 16		
Upper Secondary	86 : 14	85 : 15	80 : 20	81 : 19	79 : 21		
- General Ed.	95 : 5	94:6	91:9	94:6	89 : 11		
- Vocational Ed.	70:30	69 : 31	62 : 38	63 : 37	63 : 37		
Overall Basic Education	86:14	85 : 15	84:16	84:16	83 : 17		

Source: Thailand Education Statistics Reports (2002-2006), OEC

^{*}Note: Some educational institutions offer more than one level of education and thus are counted in each relevant level.

Out of 15,240,809 students in the Academic Year 2006, 82.6 percent or 12,593,964 students were in public institutions while approximately 17.4 percent or 2,646,845 students were in private institutions. The percentage of students that were absorbed by private basic and higher education institutions accounted for only 14.6 percent and 2.7 percent respectively. (Table 3.6)

Table 3.6 Number and Percentage of Students in Public and Private Schools, Classified by Level of Education, Academic Year 2006

Levels of	Nun	nber of Stud	ents		Percentage	
Education	Public	Private	Total	Public	Private	Total
Basic Education	10,577,032	2,232,319	12,809,351	69.4	14.6	84.0
Pre-primary	1,978,612	519,316	2,497,928	13.0	3.4	16.4
Primary	4,724,605	990,662	5,715,267	31.0	6.5	37.5
Secondary	3,873,815	722,341	4,596,156	25.4	4.7	30.2
- Lower Secondary	2,415,407	327,220	2,742,627	15.8	2.1	18.0
- Upper Secondary	1,458,408	395,121	1,853,529	9.6	2.6	12.2
General	973,408	116,079	1,089,487	6.4	0.8	7.1
Vocational	485,000	279,042	764,042	3.2	1.8	5.0
Higher Education	2,016,932	414,526	2,431,458	13.2	2.7	16.0
• Diploma	272,646	138,023	410,669	1.8	0.9	2.7
Undergraduate	1,561,302	258,282	1,819,584	10.2	1.7	11.9
Certificate	7,052	1,034	8,086	0.0	0.0	0.1
Master Degree	162,936	16,333	179,269	1.1	0.1	1.2
Doctorate	12,996	854	13,850	0.1	0.0	0.1
Total	12,593,964	2,646,845	15,240,809	82.6	17.4	100.0

Source: Thailand Educational Statistics Report (2006), OEC

3.3.3 Educational Provision for Employees by Private Enterprises

Several private enterprises cooperate with educational institutions in providing training opportunities for their students. In addition, business enterprises are encouraged to provide education for their employees.

The Labour Skills Development Act encourages business enterprises to contribute to the Labour Skills Development Fund and to provide in-house training for their employees.

In 2004, the *Ministerial Rule on Rights of Entersprises* in Establishing Learning Centres to Provide Basic Education was issued by the Ministry of Education to encourage enterprises to provide education programmes for their workers. Some rules that are imposed on educational institutions are not enforced for learning centres established by enterprises. For example, rules on the number of buildings, classrooms and student/teacher ratio are not applied, and teaching licenses are not required for instructors.

A number of enterprises provide education for their workers. Some provide formal education at the upper secondary level, while others provide vocational education equivalent to upper secondary level by focusing on work-related curriculum such as repair and maintenance of industrial machinery, welding, retail business, hotel management and food-processing.

3.3.4 Educational Provision by Families

Family-based early childhood development plays an essential role in education. Around 98 percent of the children aged 0-3 and 18 percent of the children aged 3-5 are cared for by families.

Some families preferred to provide education for their own children even before the enactment of the 1999 National Education Act empowered families to provide basic education, whereupon the number of home-schooled children increased to around 200 families.

While some families educate only their own children, others form groups and set up learning centres to provide education for children of their group. Currently, a number of schools allow these children to register as their students in order to maintain eligibility for further study.

3.3.5 Educational Provision by Religious Institutions

The great majority of Thais are Buddhists, while about 4 percent are Muslims and 1 percent Christians, Brahmins, Hindus, Sikhs and others. There is absolute religious freedom and all religious institutions are encouraged to participate in educational provision and support.









1) Educational Provision by Buddhist Religious Institutions

There are more than 30,000 Buddhist temples in Thailand. Studies of Buddhism as well as general education are provided to monks and novices in these temples as well as to laymen.

• *The Study of Buddhism* is divided into the teaching of Dharma and Pali teachings. The teaching of Dharma is provided to the ecclesiastics and also to laymen.

• General Ecclesiastical Schools

General Ecclesiastical Schools in various Buddhist temples offer general education at lower and upper secondary education levels to novices and monks in curricula equivalent to those provided by the Office of the Basic Education Commission. Apart from general subjects, the curricula include learning units related to religious practice, Buddhist doctrine and Pali Language.

• Buddhist Universities

Currently, there are 2 Buddhist universities situated in Bangkok providing higher education for monks, novices and also laymen.

Undergraduate courses, at Mahamakutrajaviddhayalaya University, are offered in the faculties of Religion and Philosophy, Humanities, Social Sciences, and Education.

Mahachulalongkornrajaviddhayalaya University provides courses at the bachelor degree level in the faculties of Buddhism, Humanities, Social Sciences, and Education. Master's and doctoral degrees are also provided in the Faculties of Buddhism and Philosophy. Since the year 2000, interested foreigners can also apply for international master degree programmes in Buddhist Studies and Philosophy.

• Informal Religious Education

Buddhist Sunday Schools offer instruction to laymen in Buddhism as well as general education. These schools offer religious instruction at the preparatory, basic, intermediate, and advanced levels

2) Educational Provision by Islamic Religious Institutions

Islamic religious institutions play a major role in providing formal, non-formal and informal education for Muslim children throughout the country, especially in the three southern border provinces of Yala, Pattani and Narathiwat.





In 2006, there were 101 Pondok schools or private Islamic boarding schools focusing on the teaching of Islam, and 47 schools that teach Islam as well as general or vocational education.

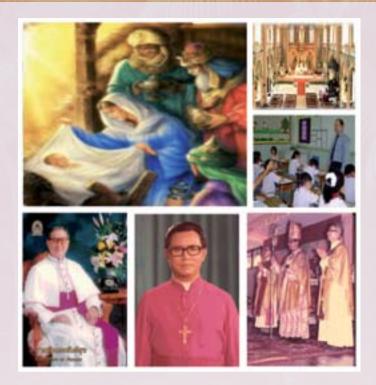
Non-formal education, focusing on vocational training and the teaching of Islam, is also provided in some schools. Muslims of all ages embrace Islamic doctrine as their way of life, and religious education is provided informally from childhood by families and nearby Islamic religious institutions.

3) Educational Provision by Christian Religious Institutions

Christian denominations play an important role in providing formal, non-formal and informal education to the Christian communities.

There are only 2 schools that focus only on the teaching of Christianity.

As for general education, both the Roman Catholic Diocese and Protestant denominations operate general education schools for their followers and others.



Non-formal education is offered for Christians wishing to become ordained while informal education programmes are offered to other Christians by these religious institutions.

4) Educational Provision by Sikh Religious Institutions

At present, there were 17 Sikh religious institutions and around 50,000 followers, with 3 basic education institutions offering formal education operated by the Sikh denomination.









Instruction in the Sikh religion using Panjabi Language as the medium of instruction is offered through non-formal and informal programmes for Sikhs wishing to become ordained. Informal education programmes focusing on the Sikh doctrine is also available to the general public.

Two out of three basic education institutions follow British curriculum, one of which is a kindergarten school preparing students for further higher levels of education at the Thai Sikh International School.

5) Educational Provision by Brahman-Hindu Religious Institutions

There are approximately 3,000 followers of the Brahman-Hindu religion in Thailand, and one school operated by the Brahman-Hindu Church. Informal education programmes provide instruction in the religion. Many Brahman-Hindu ceremonies are incorporated in Buddhist observances and in Royal rituals.









As specified in the 1999 National Education Act, local administration organisations, families, individuals, community organisations, private organisations, professional bodies, religious institutions, enterprises, and other social institutions have the right to provide and support basic education as prescribed in ministerial regulations.

Such providers and supporters of basic education are entitled to receive grants, tax rebates or exemptions for educational expenditures and state support, including academic support and other benefits as provided by the law.

3.4 Contribution of Agencies Other than the Ministry of Education

Specialised education, both at basic and higher education levels, is provided by ministries, bureaus, departments, state enterprises and other public agencies in accordance with their needs and expertise, taking into consideration national education policy and standards.

Courses are offered for graduates from primary schools to upper secondary schools, both from general and vocational streams. All responsible agencies have developed their own curricula, which can be classified into 4 groups:

- (1) Curricula for the production of professional soldiers and police include the curriculum of Preparatory School for the Armed Forces Academies; curricula of the military, naval, air force academies and police cadets; and curricula for preparing warrant officers for graduates from lower and upper secondary schools.
- (2) Curricula for specific technicians include those for training military technicians to work in the Armed Forces, as well as for various agencies such as Irrigation College, Railway Technical School, etc.
- (3) Medical science curricula are organised for secondary school graduates, requiring 1-4 years of study in the institutions of the Ministry of Public Health, the Bangkok Metropolitan Administration (BMA) and the Thai Red Cross Society.
- (4) Curricula for other specific purposes are organised for graduates from lower secondary schools, both in general and vocational streams, and general upper secondary schools as required by each institution, such as the Merchant Marine Training Centre, Cooperatives School, Postal School and Civil Aviation Training Centre, etc.

As shown in the following table, several agencies have been involved in provision of specialised education.

Table 3.7 Agencies Involved in Provision of Specialised Education

Responsible Bodies	Type of Institutions
Ministry of Agriculture and Cooperatives	Irrigation CollegeVeterinary School
Ministry of Transport	 Merchant Marine Training Centre Railway Technical School Civil Aviation Training Centre
Ministry of Information and Communications Technology	Meteorological School Postal School
Ministry of Defence	 Armed Forces Academies Preparatory School Military, Naval, Air Forces Academies Medical College Nursing Colleges Technical Training School Survey School
Royal Thai Police	Police Cadet AcademyNursing CollegePolice School
Ministry of Public Health	 Nursing Colleges Public Health Colleges College of Medical Technology and Public Health
Ministry of Justice	Law Training Institute
Bangkok Metropolitan Administration	Medical College Nursing Colleges
• Thai Red Cross Society	Nursing College

Source: Revised from Education in Thailand 2004

It is anticipated that the reform of educational administration and management, together with the continuing efforts and collaboration from all parties concerned will increase more participation in educational administration and management and push forward decentralisation of authority.





Chapter 4

Decentralisation of Power in Educational Administration

The 1999 National Education Act aimed at empowering educational service areas and schools so that they are able to deliver the best educational services to people and communities.

The Ministry of Education has thus continuously transformed such a challenging policy into action to enhance the efficiency of educational administration and management as well as to properly respond to social and community needs. The development of the decentralisation of power in educational administration could be summarised as follows:



4.1 Decentralisation of Power to Educational Service Areas and Schools

Overseeing more than 90 percent of the schools providing basic education across the country, the Ministry of Education has emphasised the policy of decentralising its power in educational administration to educational service areas and schools.

In accordance with the 1999 National Education Act, the Ministry formulated the Ministerial Regulation Concerning the Criteria and Methods for Decentralising Power in Educational Administration and Management which was promulgated on May 8, 2007 and has been effective since May 16, 2007.

The Ministerial Regulation provided that the Permanent Secretary of the Ministry of Education and the Secretary General of the Office of the Basic Education Commission undertake responsibility regarding the decentralisation of power of educational administration and management.

In this regard, power will be decentralised in academic affairs, budgeting, personnel management, and general administration to the Committees responsible for the supervision of educational service areas, the Office of Educational Service Areas and schools under their jurisdiction.

Nevertheless, the decentralisation of power in educational administration and management needs to take into consideration the following principles: 1) Readiness and suitability in performing duties of the Committees responsible for the supervision of educational service areas, the Office of Educational Service Areas and schools; 2) Laws, regulations, rules, announcements or the minutes of Ministers' meetings concerning the decentralisation; 3) Unity of educational standards and policies; 4) Autonomy and flexibility of educational administration and management; 5) Emphasis on participation from community and stakeholders; 6) Strength and flexibility of schools achieved from the decentralisation of power; 7) Enhancement of schools' quality and efficiency; and 8) Empowerment of responsible persons in decision-making.

4.2 Increase of Educational Service Areas

In 2003, 175 educational service areas were established. An evaluation of their effectiveness indicated that some educational service areas could not oversee schools under their supervision appropriately. The problems of these educational service areas ranged from the geological restraints in some remote mountainous areas, which obstruct transportation and communication, to the violence and insurgency emerging continuously in the three Southern border provinces. With advice from the Office of Education Council, the Ministry of Education proposed to the Council of Ministers that 10 additional educational service areas be established. In 2008, there are altogether 185 educational service areas.

The Ministry of Education originally designed the educational service areas as local education authorities providing educational benefits for children and people in accordance with the locality, identity and ways of life in their communities. Following the promulgation of the Ministerial Regulation, the Office of the Basic Education Commission made its announcement concerning the decentralisation of power in educational administration in July, 2007.

The announcement decentralises the power in educational administration of the Secretary-General of the Basic Education

Commission so as to increase the autonomy, flexibility and responsiveness to the needs of learners and communities of the Committees responsible for the supervision of educational service areas, the Office of Educational Service Areas and schools under its jurisdiction.

4.3 Training of Change Leaders to Support Decentralisation

The Ministry of Education realised that decentralisation would not be fruitful if the personnel in educational service areas and schools were not prepared. Therefore, training of change leaders was initiated to equip them with the knowledge and skills necessary for managing organisations of the new era.

Accordingly, nationwide development programmes were organised for prospective change leaders such as directors and deputy directors of the educational service areas, school principals, vice principals of public and private schools, including Islamic private schools, as well as supervisors and head teachers of subject groups. Some of these designated change leaders were trained to be the trainers of other trainees for further implementation.

4.4 Decentralisation of Power to Local Administrative Organisations

In accordance with the National Education Act, local administration organisations can provide education at any or all levels of education according to their readiness, suitability and the requirement of the local areas.

The Ministry of Education is responsible for prescribing the criteria and procedures for assessing the readiness to provide education of the local administration organisations as well as co-ordinating with them and promoting their capability in provision of education in line with the policies and standards required.

Besides, the Ministry of Education will also advise on the budgetary allocations for education provided by local administration organisations. The relationships between state educational organisations and local administration organisations can be represented in the table below.

Table 4.1 Relationships between Public Educational Organisations and Local Administration Organisations

Organisation	S
Public Educational Organisations	Local Administration Organisations
 Ministry of Education will be responsible for the following: Formulating the criteria and methods for assessing the readiness to provide education of local administration organisations. Supporting and collaborating with local administration organisations so as to enable them to provide education in line with policies and standards. Giving recommendations on educational budgetary allocations of local administration organisations. 	Local administration organisations such as municipalities, Bangkok Metropolitan Administration, Pattaya City, Provincial Administration Organisations, District Administration Organisations and the other local administration organisations established by the law will: 1. Have the right to provide education at any or all levels in accord with readiness, suitability and the requirements of the local administration organisations. 2. Participate in the provision of education by: 2.1 being a committee representative of local administration organisations, committees in each level (at the central level, in educational service areas and in educational institutions) 2.2 mobilising resources for education in local areas i.e. allocation of local income for education. 2.3 monitoring, auditing and evaluating the provision of education as the main organisations and representatives of people in local areas.
2. Educational Service Areas Area Committees for Education and Educational Service Area Offices are	The local administration organisations cooperate with educational service.

Area Committees for Education and Educational Service Area Offices are responsible for the promotion of and collaboration with local administration organisations in the provision of education in line with policies and educational standards.

- The local administration organisations cooperate with educational service areas.
- 2. The representatives of local administration organisations participate in the Area Committees for Education.

Public Educational Organisations	Local Administration Organisations
3. Basic Education Institutions Basic education institutions are responsible for the provision and service of education to people in local areas. In each educational institution, there is a board supervising and supporting its management.	The representatives of local administration organisations are members of the board that supervises and supports the management of basic education institutions.
4. ONESQA The Office for National Education Standards and Quality Assessment (ONESQA) is responsible for developing the criteria and methods of external quality assessment of educational institutions under the supervision of local administration organisations as well as submitting the report to local administration organisations.	Local administration organisations are responsible for the following: 1. Developing an internal quality assurance system in educational institutions. 2. Endorsing the results of external quality assessment conducted by the ONESQA. 3. Improving and developing educational institutions as proposed by the ONESQA.

4.5 Progress of the Transfer of Authority to Local Administrative Organisations

In 2006, the Council of Ministers approved the implementation of the Plan to Decentralise Authority to Local Administrative Organisations. As a result, a system to assess the readiness of local administrative organisations was established.

Essential preconditions for the transfer include not only the readiness of local administrative organisations but also the willingness of school teachers, principals, other personnel and school council members

During the transition period, a number of problems were encountered and the process was temporarily delayed due to the resistance to change of teachers' organisations. However, the transfer of schools from the Ministry of Education to local administrative organisations was successful to a certain degree.

In order to facilitate the decentralisation of power in educational administration from the Ministry to local administrative





organisations, the Office of the Education Council conducted a research study on educational decentralisation of selected countries, including the United States of America, the United Kingdom, France, Australia, New Zealand, the Republic of Korea, Japan, and Malaysia.

The study found that establishment of an educational administrative body or the so-called "Board of Education" resulted in effective decentralisation. In this regard, such a body should be enriched by participation from stakeholders, political neutrality, educational professionalism, and self-management. Therefore, the research suggested that a Board of Education should be established in local administrative organisations to increase their efficiency in rendering educational services which lead to quality improvement of education.

After the evaluation of the First Plan to Decentralise the Power to Local Administrative Organisations, the Council of Ministers approved the Second Plan in 2008. The Second Plan to Decentralise the Power to Local Administrative Organisations divided the task of providing education into two following groups:

1) The first group is concerned with formal basic education, consisting of pre-primary education, primary education, and secondary education which includes lower and upper secondary education of both general and vocational streams; and

2) The second group is concerned with non-formal education and education such as library, non-formal basic education and non-formal education which is offered as particular training or vocational training according to the needs of target groups, and informal education.

The special provision of the Second Plan is the establishment of the "Board of Education" in each province. The Provincial Board of Education is responsible for supervising the provision of education in schools under the jurisdiction of local administrative organisations; formulating the policies, plans and standards of educational institutions under the local administrative organisations; and allocating resources for education. In addition, educational administration of vocational institutions will be transferred to the Bangkok Metropolitan Administration and other Provincial Administrative Organisations in line with the criteria of their readiness.

Continuous progress was made regarding the decentralisation of power in educational administration from the Ministry of Education to local administrative organisations. The number of local administrative organisations providing education increased from 164 in 2006 to 234 in 2007 while schools under their jurisdiction also increased from 981 in 2006 to 1,291 in 2007.

4.6 The Decentralisation of Power to Higher Education Institutions

The Office of the Higher Education Commission developed laws concerning the administration of both public and private higher education institutions. These laws aim to increase their autonomy and flexibility and to encourage self-management under the supervision of university councils. Within the framework of the law, each public higher education institution can establish its own internal organisations as deemed necessary.

So far, seven public universities have been transformed into autonomous universities. Furthermore, the law concerning personnel administration of general public higher education institutions was revised to enhance the efficiency of the personnel administration systems in higher education institutions. The law concerning private

higher education was also modified to strengthen their academic administration to cope with rapidly changing academic affairs.

The increase of people's participation in administration and management of education as well as continuing efforts and collaboration from all parties concerned are needed to push forward decentralisation of authority.



PART II EDUCATIONAL REFORM IN PROGRESS

Chapter 5

Development of Teaching and Learning

The concept of learner-centred learning has been generally accepted into the teaching-learning process to facilitate learner development at various stages, and to provide a learning environment that allows for freedom, relaxation and enjoyment so that each child's intellect can be developed to its full potential.

Several projects have been undertaken to develop the teaching-learning process, including: 1) teaching-learning innovation; 2) improvement of teaching and learning quality in small-sized schools; and 3) the development of teaching techniques and improvement of analytical thinking skills as practiced in Laboratory Schools.

5.1 Teaching-Learning Innovation

Learning reform is regarded as the heart of Thai educational reform and considerable efforts have been made to reform the teaching learning process, especially, a shift from teacher-oriented instructional methods to more learner-centred ones, the development of new learning media, equipment, and techniques, and the training of teachers.

Teachers have been trained, through the school-based training activities, to adopt the learner-centred approach in which the instructor's role is viewed as coach and facilitator of student learning, rather than as a controller and transmitter of content. Since 1998, the Office of the Education Council identified and designated 586 individuals as Master Teachers who then trained 8,848 teachers as their network members.





The Research and Development project was conducted by the Office of the Education Council in collaboration with Master teachers and their network teachers to develop and try out various teaching-learning techniques suitable for the contexts of their schools. After the synthesis of these teaching methods, it was found that nine teaching-learning techniques could appropriately be adopted by these teachers to develop the thinking and scientific thinking processes of their students. These are 1) questioning techniques; 2) problem-solving techniques; 3) problem-based instruction; 4) generation of knowledge through Constructivism; 5) promotion of constructive thinking; 6) project-based learning; 7) use of authentic experience; 8) integration of multi-intelligence units; and 9) use of learning sources, such as the ecosystem in rice fields and vegetable farms.



Between 2005 and 2006, teaching models developed around these techniques were piloted in 90 basic education institutions. More than 9,500 teachers and a large number of students participated in the project to develop the teaching and learning skills in line with the national education standards.

The evaluation of the pilot study, using a pre-test and post-test technique, to compare 3,450 students' achievements yielded a positive result. Students' overall performance was improved in terms of learning behaviour, memorising ability, understanding, applicability, and analytical thinking.

It was found that throughout the Research and Development project, teachers gradually changed their attitude and teaching behaviour to increasingly adopt the learner-centred approach. More emphasis was placed on the training of thinking skills, learning by doing and students were allowed to construct knowledge by themselves. In addition, further cooperation between teachers and peers as well as between school and community was observed.

New dimensions of working cultures, such as peer-friendly atmosphere, knowledge transfer, cooperative teaching, school-community collaboration, and the increase of new researchers, were also found from the research.

The teaching models were compiled in the form of multimedia, such as publications and DVD, and disseminated to schools across the country. Moreover, seminars were organised in the four regions

of the country so that teachers could participate and learn from each other in the presentation of the nine teaching models.

5.2 Improvement of the Teaching and Learning Quality in Small-sized Schools

A large number of institutions are small-sized schools under the supervision of the Office of the Basic Education Commission. It is essential that typical problems shared by small-sized schools be solved urgently to increase educational opportunities, and to improve student quality, teaching and learning activities, and administration and management in these schools.

5.2.1 Current Situation in Small-sized Schools

In the past, the Ministry of Education had established primary schools in every district so as to provide an educational opportunity for every child no matter where they lived.

Due to the constant decrease of the birth rate and the more convenient transportation which enabled rural students to commute to more famous schools in urban areas, about one-third of primary schools became small-sized ones, with less than 120 students. This situation triggered several problems in small-sized schools.

Common problems are shared in the majority of small-sized schools, including the teacher shortage in some subjects, an inadequacy of per-head budget, and a shortage of learning materials, especially those utilising media and technology.

These problems had a profound impact on educational quality improvement of small-sized schools. According to the external quality assessment conducted by the Office of the National Education Standards and Quality Assessment (ONESQA), it was found that 65 percent of schools performed lower than the national standards and most of them were small-sized schools.

5.2.2 Guidelines for Improvement of the Teaching and Learning Quality in Small-sized Schools

The Office of the Basic Education Commission developed two models as management and instruction guidelines for these small-sized schools.

1) Model I: Forming of School Clusters

School clusters, each of which comprises two to five schools located between two and five kilometers in distance from each other, will be formed. The biggest school in the cluster will be selected as the centre where students from nearby schools can commute conveniently. To facilitate this system, the Ministry of Education must provide a budget for transportation.

Schools can adopt the classroom management technique either in the form of the so-called "non-grade" or "multigrades" in which students of certain grades, such as grade 1-2 and grade 3-4, learn together.

Another method is an integration of learning contents. Teachers are required to initiate the teaching-learning technique and integrate the contents as deemed appropriate for students of all classes to encourage students to enrich their life skills and construct new knowledge by themselves.

In addition, teachers might use the ICT or Reduced Instruction Time (RIT) programmes, other learning sources and local wisdom experts in the community as educational resources.

2) Model II: Dissolution and Consolidation of Small-sized Schools

It is suggested that, where necessary, small-sized schools would be dissolved or consolidated into a bigger one. However, the dissolution of schools was implausible due to the resistance of communities.

Recently, however, a noteworthy collaborative project called "I see U" supported by the Office of the Basic Education Commission and Matichon Co., Ltd. was implemented. The project campaigned for the contribution and cooperation from concerned parties to help improve the teaching and learning quality in small-sized schools

5.2.3 Proposed Strategies for Improvement of Teaching and Learning Quality in Small-sized Schools

To solve the problems of small-sized schools proactively, the Office of the Basic Education Commission proposed four Strategies to Develop the Quality of Small-sized Schools as follows:

1) Provision of Necessary Infrastructure

The Office of the Basic Education Commission will allocate for small-sized schools, the infrastructure, i.e. personnel, budget, and equipment, necessary for providing quality education according to the basic education standards. The teacher shortage can be solved by various measures, such as an integration of subjects, an implementation of non-class method, a mobilisation of local wisdom experts and the development of school administrators and teachers to be able to work efficiently within the limited resources.

2) Efficiency Increase of School Administration

In order to enable 80 percent of small-sized schools to manage efficiently, the Office of Educational Service Areas will organise the school mapping, develop the educational information system, update and validate the Geological Information System (GIS) and use it for planning of the dissolution and consolidation of small-sized schools, including the provision of teachers, budget, and other facilities to support schools in providing quality educational service.

3) Improvement of Teaching / Learning Quality

The Office of the Basic Education Commission will revise the curriculum and instruction as deemed appropriate for small-sized schools, develop school teachers to have enough potential in teaching integrated subjects and using technology for effective teaching.

4) Resource Mobilisation from All Social Sectors

The Office of the Basic Education Commission will encourage the mobilisation of resources from the private sector, professional associations, religious institutions, entrepreneurs, and other social institutions. It is expected that such resource mobilisation will make contributors realise the significance of education and properly take part in the provision of education in small-sized schools.

5.3 Laboratory (Lab) School Programme: Building Quality Schools in Each Community

The lack of quality schools caused student migration from local communities to schools of a better quality elsewhere. The need to retain good students in their own locality and provide access to quality schools in every community has become an increasing concern amongst students, parents and educators across the country.

In response to the policy, 1,800 schools across 921 districts nationwide were chosen to participate in the Laboratory (Lab) School Programme. These chosen primary and secondary schools receive an extra budget to accelerate their quality improvement.

The Laboratory (Lab) School Programme aims to provide opportunities for all to enter good standard schools near their home; to reverse a culture of children leaving their homes to seek access to better schools in other communities and urban areas; to reduce the gap between the poor and the rich; to reduce the income disparities across different communities; and to drive a cycle of impoverishment away from destitute communities.

The Office of the Basic Education Commission believes that Lab Schools have provided a sustainable school improvement and levering of local resources, breaking local communities away from a cycle of impoverishment due to the development of quality education and lifelong learning in the community. The outcome has been the development of new learning opportunities for both children and adults in urban and rural communities nationwide.

Since the launch of the programme, considerable public attention and debate has been raised within communities and in the national media. However, the transformation of teaching and learning across communities has been clear and on a day to day basis.

So far more than 30,000 teachers and 800,000 students have been reached and 917 out of 921 Lab Schools passed the final Lab School certification. In the lab school programme, the new forms of educational development and partnerships, founded on collaboration between schools, teachers, parents and communities, are focused to provide students with quality education.

The Lab School programme set up standards which include the development of student characteristics, comprising enquiry skills and processes, problem-solving, analytical thinking, autonomous learning, effective communication and ability to use technology effectively in their daily life.

In this regard, the following infrastructure should be provided: 1) Setting up and investing in learning resources such as mathematics labs, physics labs, chemistry labs, biology labs, physics Labs, language labs, and computer labs; 2) Providing teaching aids and learning media, such as computers with internet access, science equipment, educational games, software, and LCD projectors; 3) Changing the teaching style from a didactic teacher-led process to a more student-centred approach while promoting thinking skills to encourage students to question, demonstrate experiments, learn through project-based working, self-study, and team work; and 4) Creating a clean and green school atmosphere to create a beacon treasured by the community, students, teachers and parents.

Between 2004 and 2006, around 2,370 million baht were allocated in 921 schools under the supervision of 175 Educational Service Areas (ESAs). In this regard, 36,733 sets of computers were purchased and 1,100 temporary teachers were hired and trained.



Table 5.1 Distribution of Budget in Lab Schools (2004-2006)

	Use of Budget					
Budget Years	Schools	ESAs	Computer Sets	Teacher Payment	Teacher Training	Total (MB)
2004	930.59	42.22	653.85	72.58	64.30	1,763.54
2005	243.52	8.75	-	71.50	21.03	344.80
2006	120.09	5.03	-	114.52	21.37	261.01
Total	1,294.20	56.00	653.85	258.60	106.70	2,369.35

Source: Office of the Basic Education Commission

The Lab School programme has been funded on a partnership basis between the Ministry of Education, the school and the local community and through private sector support on a national scale. The dedication of school leaders and administrators, teachers, school committees and school sponsors as well as the determination of each school to seek and effectively administer new financial resources are key components in the overall development of Lab Schools.

The Office of the Basic Education Commission, Ministry of Education, has provided resources to schools with a minimum of 1.2 million baht invested per school including provision of servers and 40 computers per school. To deliver the success story of Lab

Schools, however, additional investment is still required to support the transformational agenda and alternative sources.

An adverse effect also emerged in a number of schools in which significant debt (about one million baht) was accumulated. However, a budget of about 1.1 million baht has been provided from wider government sector agencies, the private sector and members of local communities.

Partners in the private sector include: Krung Thai Bank, The PTT Exploration and Production Public Company Limited, Unithai Group, Minor Company, Baan Pu Company, Thai Stock Exchange, Charoen Pokphan Foods Public Co., Ltd., Electricity Generating Authority of Thailand, Thai Rath foundation, Damrong Chaitam foundation, Provincial Administrative Organisation, and Sub-District Administrative Organisation.

In the past 3 years, Lab Schools have made a big leap in academic standards and reduction of student migration from local communities. In the Academic Year 2004, the number of students in Lab schools has been extremely encouraging reflecting a 16.6 percent increase, equal to 134,581, and the admission to higher education was raised by 20 percent.



Progression to Universities of students from Lab Schools has also increased noticeably, with students entering the top 10 universities in the Academic Year 2005 reaching 15,821, a dramatic rise from 2004 where the number was only 6,565. In addition,

872 students also won scholarships under the one Tambon one scholarship programme to further their education at the doctorate level in Thailand and abroad.

Examination results from the Ordinary National Education Tests (ONET) in 2005 showed that there was still a need for

improvement. Other internal and external assessment records were also conducted by various other agencies, including the lab schools themselves, the Office of the Basic Education Commission (OBEC), the Office of National Education Standards and Quality Assessment (ONESQA), and the External School Assessment Report (SAR).

The Lab School Programme assessed the learners' standards according to its Master plan and objectives as shown in Table 5.2.

Table 5.2 Learners' Standards Assessments in Lab Schools

I	Assessors			
Learners' Standards	Schools	OBEC	ONESQA	SAR
Skill in using computer programmes and ICT for learning	81.5%	80.0%	-	78.9%
Aesthetics (Arts, Music, Sport)	80.3%	82.2%	95.5%	
Happiness in learning, healthy both physical and mind	79.4%	82.4%	87.9%	
Life Skills, love to work, able to work with others	74.6%	79.8%	82.4%	
Morality, ethics, and desired value	73.4%	70.3%	80.3%	
Love to learn, desire to learn, and be able to search the knowledge by themselves	66.5%	65.9%	45.4%	
Skill in analysing, synthesising, creating, and using discretion	49.7%	50.0%	26.6%	
Self-confidence and creative expression	49.2%	55.0%		
Skill in using second language to communicate	46.3%	44.1%		
Knowledge and skill needed in studying	44.7%	60.6%	13.1%	91.5%

Source: Office of the Basic Education Commission

Awards have also been a key indicator of the progress made by Lab Schools. Some of these schools have won awards in encouraging thinking skills and for innovation and engineering in Thailand and abroad. Prizes won by students in Lab Schools included two out of three Gold Medals and one out of two Bronze Medals that Thailand won at the International Students Invention Exhibition 2006 at Seoul, the Republic of Korea.

The Lab School programme in 2007 and 2008 is comprised of the following issues: 1) Educational achievements in all core subjects of students will be raised by at least five percent. In this regard, a teaching and learning centre for each core subject will be set up in every province around the country; 2) Regional Supervisors around the country were assigned to accelerate continuous development; 3) To accelerate the development of schools and students, the Sufficiency Economy Philosophy will be adopted; 4) The School-Based Management theories and practices will be adhered to so that schools will be able to be independent and ensure the sustainability of the recent investments and improvements; and 5) Lab Schools will be supported as models for local district-wide school improvement. As planned, one Lab School will supervise five primary schools. Initially, the number of network primary schools is 4,605; eventually the number will reach 6,400.

The overwhelming majority of Lab Schools are considered as good schools nearby, with a community sense of pride and responsibility about their development. As such, communities have shared the joy of seeing their children and wider community visibly improve from a collective investment in school improvement. Lab Schools belong to their communities and are shaped beautifully as gifts for Thai children throughout the country. The Lab Schools also reflect the participation, kindness, devotion, patience, and solidarity of the governmental agencies, private sector and people in the communities.

Considerable efforts were made by concerned agencies to improve the teaching and learning quality. Further improvement of Thai education requires vigorous efforts by concerned agencies as well as contributions from all stakeholders in the society.

Chapter 6

Development of Teachers, Faculty and Educational Personnel

Teachers and educational personnel play the key role in reforming the learning process and are change-agents for educational quality improvement. Hence, the development of teachers and educational personnel has been considered a critical issue for educational reform in Thailand. Consequently, great efforts have been made to improve the status and standards of the teaching profession in line with the 1999 National Education Act.

6.1 Present Status of Teachers and Faculty

Except for the Academic Year 2003, the total number of teachers in basic education gradually increased during the academic years 2004-2006 (Table 6.1).

Table 6.1 Number of Teachers in Basic Education (Academic Years 2002-2006)

Degrangible Agencies	Academic Years					
Responsible Agencies	2002	2003	2004	2005	2006	
Ministry of Education	568,280	567,741	555,682	574,870	569,552	
Ministry of Tourism and Sports	354	116	143	230	140	
Ministry of Culture	907	886	962	987	958	
Ministry of Interior	13,914	13,701	13,713	14,024	21,197	
Bangkok Metropolitan Administration	13,030	13,167	13,012	12,840	14,659	
Ministry of Social Development and Human Security	106	755	779	106	106	
Royal Thai Police	1,805	1,669	1,778	1,830	1,748	
Total	598,396	598,035	586,069	604,887	608,360	

Source: Thailand Education Statistics Reports (2002-2006), OEC

In contrast, the total number of faculty in higher education increased steadily during the academic years 2002-2006. (Table 6.2)

Table 6.2 Number of Faculty in Higher Education (Academic Years 2002-2006)

Deenougible Agoneies	Academic Years					
Responsible Agencies	2002	2003	2004	2005	2006	
Ministry of Education	46,992	57,159	60,262	62,947	66,431	
Ministry of Tourism and Sports	774	874	988	781	1,259	
Ministry of Culture	174	176	171	171	171	
Total	47,940	58,209	61,421	63,899	67,861	

Source: Thailand Education Statistics Reports (2002-2006), OEC

Even though the total number of teachers in basic education gradually increased, Thailand is still facing the problem of a shortage of teachers, particularly at the basic education level. The Basic Education Curriculum is comprised of eight core academic subjects, namely, Mathematics, Science, English, Thai Language, Arts, Social Studies, Careers and Technology, and Physical Education. Despite attempts to attract qualified persons to teach in the core academic subjects, shortages remain in required areas, especially foreign languages, science and mathematics.

In 2007, the Office of the Education Council submitted to the Council of Ministers a proposal suggesting that the number of teachers should be increased in all core subjects. (Figure 6.1)

12000 10000 8000 4000 2000 0

Figure 6.1 Teacher Shortage by Subject (2005)

Source: Office of the Education Council

This proposal cited the following causes of the teacher shortage:

1) The Government's Civil Servant Downsizing Policy

With the early retirement project between the Academic Years 2000-2006, the total number of retired teachers was 76,133. However, the number of positions for new teachers to be recruited by the Ministry of Education is equivalent to only 20,994.

2) Out-of-Field Teaching

According to the research conducted by Dr. Pruet Siribanpitak and Dr.Siriporn Boonyananta in 2004, 22.7 percent of teachers in basic education institutions do not teach the subjects of their major or specialisation.

3) Extended Teaching Hours

The average teaching hours of Thai primary and lower secondary teachers are 24.05 and 29.45 hours per week, while those of the OECD countries are 21.25 and 18.85 hours per week respectively.

4) Teachers' Workload

Besides teaching, Thai teachers particularly at the basic education level have various duties, including administrative affairs, academic affairs, students' affairs and service affairs. Moreover, they were often assigned to participate in activities conducted in school and in the community.

However, the recent resolution of the Council of Ministers helps solve the problem of downsizing by returning to educational institutions 20 percent of the positions previously dissolved along with the early retired teachers. In addition, for long-term professional security, most of the contracted teachers will be assisted and recruited as in-service teachers. This will help solve the teacher shortage problem.

To upgrade teaching to a highly respected profession, teachers were empowered and professional standards were controlled. In line with Chapter 7 of the 1999 National Education Act, the teaching

profession development system in Thailand was reformed in four key areas: teacher educational development; personnel management and a new salary scale; maintaining professional standards; and the development and promotion of teachers and educational personnel.

6.2 Teacher Education Development

Similar to several other countries, the School of Education in Thailand normally offers a four year bachelor degree programme. In 2005, a five year bachelor degree programme was initiated so as to recruit bright students with favourable attitude towards the teaching profession as entrants in teacher education. At that time, a number of first-year students were granted scholarships of around 2,039 US Dollars per person. Upon completion of the programme, comprising three and a half years of coursework and three semesters of teaching practice, graduates are expected to receive a higher starting salary than bachelor degree graduates in other fields. Moreover, extra remuneration for academic rank similar to those of faculty, as well as a teaching license and job guarantee are offered.

In this programme, the faculty works closely in collaboration with schools and in-service teachers. With faculty as their mentors, teacher trainees will be able to practice in real situations, trained and advised by school teachers and school administrators will also provide necessary facilities to support their training.

The Office of the Basic Education Commission evaluated the five year bachelor degree programme for teachers and concluded that the programme was able to attract bright students to study in the field of education and will produce more qualified teachers in the near future. Due to the strictness of recruitment criteria, it is believed that almost all of those scholarship recipients have high potential and will become qualified teachers. Consequently, the Deans of Education proposed that the Council of Ministers reinstate the scholarships and other mentioned benefits attached to the five year bachelor degree programme for teachers.

6.3 Personnel Management and New Salary Scale

Three laws were issued to implement reforms in personnel management of teachers and educational personnel:

- 1) The Act on Administrative Procedures for Teachers and Educational Personnel: In accordance with the Act, the personnel management system has been decentralised, with duties and authorities organised at 3 levels: (1) The Commission for Teachers and Educational Personnel, responsible for personnel management at the central level; (2) The Sub-Commission for Teachers and Educational Personnel, attached to each Educational Service Area; and (3) Educational Institution Committees, responsible for personnel management in each school.
- 2) The Act on Administrative Procedures for Civil Servants in Higher Education Institutions: Under this Act, civil service personnel in each state university will become employees of that institution. State universities that opt for autonomy will therefore undergo a tremendous change in their personnel management system.

To reduce the impact of the transformation, the Office of the Higher Education Commission will allow each institution to establish its own rules and regulations, and set its own timeframe for the changeover in personnel administration and management.

3) The Act on Salary and Remuneration for Status and Academic Rank of Teachers and Education Personnel: This act specifies salary, remuneration, and benefit levels for teachers and educational personnel commensurate with their status and academic rank.







6.4 Maintaining Professional Standards

To ensure the maintenance of professional standards, the main areas that have been addressed are institutional development and the development of professional standards and ethics.

1) Institutional Development

Two organisations under the supervision of the Ministry of Education focus on teacher professionalism. The Office for Welfare and Security Promotion of Teachers and Education Personnel oversees welfare and security of teachers and education personnel. The Teachers Council is to take on the added responsibilities of setting professional standards, issuing and revoking professional licenses, as well as monitoring adherence to professional standards and ethics.

2) Development of Standards and a Code of Ethics For Educational Professionals

The Teachers' Council has established a set of standards and a code of ethics for educational professionals, in line with the 2003 Teachers and Education Personnel Council Act, which specifies that professional standards be comprised of professional knowledge and experience, performance, and conduct.

Standards of professional knowledge for teachers include criteria relating to language and technology, curriculum development, learning management, psychology, educational measurement and evaluation, classroom management, educational research, educational innovation, and information technology.

Performance standards consist of professional training and practice teaching during study and teaching experience in specific subjects.

The standards of conduct relate to personal, professional, client-centred, collegial, and societal ethics.





6.5 Development and Promotion of Teachers and Educational Personnel

6.5.1 Training of Teachers and Administrators of Educational Institutions

Given the shift from teacher-centred to learner-centred approaches, teachers must be able to function as facilitators, to enable students to become independent in thought, action, and problem solving while adhering to ethical and moral values of the society.

Under the current reform measures, Thai teachers are being supported and encouraged to attend training courses locally and abroad. The following training activities are among those organised especially for teachers and education personnel:

- 1) Development of the Five Year Pre-service Education Programme: This programme requires completion of a five year bachelor's degree, with the first four years dedicated to coursework and a final year devoted to teaching training at an approved school. College graduates with a bachelor's degree in fields other than education must complete a 1-year graduate certificate programme in education before being certified.
- 2) Training for In-service Teachers of English: Several agencies, including the Office of the Vocational Education Commission, organise training activities for teachers of English under their supervision. As for the Office of the Basic Education Commission, teachers under their supervision were trained under the Strategic Plan for Reforming the English Learning Process to

Accelerate National Competitive Ability, which was approved by the Council of Ministers in 2006, with an implementation period between 2007 and 2010

According to the Strategic Plan, the English Language Institution (ELI) was established under the supervision of the Office of the Basic Education Commission. This organisation is responsible for setting up the criteria for training teachers of English through cooperation with other agencies, especially the 175 educational service areas, English Resource and Instructional Centres (ERIC) throughout the country as well as the British Council and American University Alumni (AUA), with a budget subsidised by the Government.

Training activities focused on five categories of the national standards for English language proficiency of teachers, comprising linguistic competence, communicative competence, knowledge of foreign language teaching theories and approaches, ability to organise learning consistent with the syllabus, and on-going professional development.

The English Language Institution aims to develop all teachers of English every year until they reach the Advanced Level. In this regard, it works closely with all educational service areas to organise training for in-service teachers of English. In 2004, the total number of in-service teachers of English in basic education institutions was around 113,957 and most of them were trained by lead teachers of the ERIC Centres.

Educational service areas are responsible for evaluating the English proficiency of trained teachers in accord with the criteria set by the English Language Institution.

In accord to their scores, these trained teachers will be divided into three groups: 1) Group A or Advanced Level (42.20 percent); 2) Group B or Intermediate Level (39.15 percent); and 3) Group C or Beginner Level (31.84 percent). Between 2004 and 2006, teachers of English under the supervision of the Office of the Basic Education Commission were trained as shown in Table 6.3.

Table 6.3 Training for Teachers of English under the Supervision of the OBEC (2004-2006)

Years	Organisers	Trainees	Number	Number/ Percentage
2004	Domestic InstitutesERIC CentresForeign Institutes	- Teachers Groups A & B - Teachers Groups A & B - Teachers Groups A & B	10,430 37,190 465	48,085 (42.20%)
2005	- Domestic Institutes - Educational Service Areas - ERIC Centres	 Lead Teachers Teachers of English (First-time Trainees) Teachers Groups A & B 	5,663 21,000 17,500	44,613 (39.15%)
2006	- Domestic Institutes - ERIC Centres - Foreign Institutes	Lead TeachersTeachers of English (First-time Trainees)Lead Teachers	6,702 28,930 400	36,282 (31.84%)

Source: Office of the Basic Education Commission

- 3) In-service Training for Teachers of Mathematics and Science: The Institute for the Promotion of Teaching Science and Technology (IPST), an independent body under the supervision of the Ministry of Education, has various projects on developing science, mathematics and technology teachers, supervisors and administrators, including the following:
 - (1) Promotion of Training for Talent in Science and Mathematics

Between 1998 and 2007, the IPST granted 580 scholarships per year to gifted and talented lower secondary students in science and mathematics. The scholarships are for four year bachelor degree programmes in physics, chemistry, biology, mathematics and computer science as well as for a diploma of one-year higher than degree programme in education. So far, 2,443 scholarship recipients have graduated; they became school teachers or officials in relevant public and private institutions throughout the country.



(2) Development of Teachers, Supervisors and Administrators in the Fields of Science, Mathematics and Information Technology

Between 2003 and 2007, the IPST implemented many projects to develop teachers, supervisors and administrators in the fields of science, mathematics and information technology, including:

- Development of 972 lead schools and 3,873 lead teachers as well as teachers in the fields of science (3,060), mathematics (2,795), and information technology (2,577);
- Training for in-service teachers broadcast through the distance learning programmes run by Educational Television (ETV): Approximately, 34,671 teachers in the mentioned fields across the country were trained;
- The World Bank-Supported Training for 89 science teachers and 80 mathematics teachers. These trained teachers later trained 1,611 science teachers and 1,477 mathematics teachers;
- Training for in-service teachers through the Satellite Distance Learning Programme: In this project, 41,032 science teachers and 5,302 mathematics teachers were trained;
- Training for in-service teachers in 24 provinces through a video conference programme; and

- Training for in-service teachers in the fields of computer science (848), mathematics (1,000), sciences (1,346), and information technology (425), as well as 358 lead administrators and supervisors.
- 4) Completion of the Bachelor's Degree in Education for in-service teachers: In accordance with the 1999 National Education Act, a professional teaching licence is required of in-service teachers and school directors, for which a Bachelor's Degree in Education is a requirement. Rajabhat Universities have been conducting these special programmes since 2003 for in-service teachers who must meet this requirement. It is expected that all in-service teachers will have attained at least a Bachelor's Degree in Education by the year 2007.
- 5) In-service programmes for a Post-graduate Certificate and Master's Degree in Teaching: Teachers holding a bachelor's degree in fields other than teaching are encouraged to undertake in-service programmes leading to a Post-graduate Certificate or a Master's Degree in Teaching.
- 6) In-service Post-graduate Certificate Programme for Administrators: Educational institution administrators must have a licence. This licence requires a Bachelor's Degree, or at least a Post-Graduate Certificate, in Educational Administration in addition to a bachelor's degree in another field.

Administrators who hold a bachelor's degree in fields other than educational administration are thus required to acquire at least a Postgraduate Certificate in Educational Administration. During 2003 through 2007, Rajabhat Universities, in cooperation with other agencies, are offering a programme to enable administrators to study for this certificate at their workplace.

7) *In-service Master Degree Study for Administrators:* Administrators of educational institutions holding a Bachelor's Degree in Educational Administration are encouraged to study towards a master's degree in the field.

6.5.2 Development and Promotion

The development and promotion of teachers and educational personnel was undertaken in a number of ways:

1) Establishment of an Independent Organisation for Teacher Development

The National Institute for Development of Teachers and Educational Personnel, previously known as the Institute for Development of Educational Administrators, carries out the following development tasks: (1) formulation of policies, plans and guidelines; (2) implementation of promotion and support activities; (3) development of systems and standards; (4) coordination and networking among relevant agencies; and (5) improvement of internal efficiency.

Approximately 60 million baht will be expended by the Institute between 2006 and 2009 to expand and strengthen its network for development and to train 600,000 teachers and educational personnel. A variety of training methods will be employed, including networking, e-learning self-study kits, peer-group teaching, classroom research, seminars, and distance learning.

2) Personnel Development

To attract qualified individuals to the teaching profession and retain them, special salary scales have been introduced, and a four year (2005-2008) strategic plan has been formulated to solve the problem of teacher indebtedness.

Scholarships for master's and doctorate degrees as well as academic training activities in science and technology are being provided to qualified teachers with special abilities in these fields.

Teachers and students with special abilities in the fields of mathematics, chemical science, biological science, physics, and computing are fully supported in their research projects and training activities. Qualified students are selected to represent Thailand in the International Academic Olympics.

3) Development of and Promotion for School Principals and Administrators

To fully utilise the resources of the country's higher education institutions in the development of teachers and administrators, the Office of the Education Council has established a coordinating body to create a network of educational administration departments offering graduate degrees and training courses.

The initial membership of the body, called the Education Administration Directors Council of Thailand, is currently comprised of 57 departmental directors. Now known as the Association for Professional Development of Educational Administration of Thailand, the organisation has played an important role in strengthening educational administration science through seminars and symposiums, as well as by selection of and awards for outstanding research, textbooks, and lecturers.

The Association also recognised and rewarded 15 Model Administrators with outstanding knowledge, capabilities and performance in school administration. The Office of the Education Council recently published a study describing the administration models, school board development, and network creation in the schools managed by these model administrators.

4) Recognition and Rewarding of Outstanding Teachers

The most significant agents of learning reform are teachers, and the contributions of outstanding teachers are recognised by organisations such as the Teachers' Council of Thailand and the Association of Science Teachers. The Office of the Education Council has selected outstanding teachers under three categories, National Teachers, Master Teachers, and Teachers of Thai Wisdom, to recognise professional excellence and to enhance the quality of teaching and learning.

(1) National Teachers

The National Teacher Award recognises innovations that improve the quality of learning. The award consists of a salary supplement, a grant to accomplish a proposed innovative

project, and a grant to the teacher's school to facilitate integration of the teacher's project into the school.

From 1998 to 2006, four groups, comprising 26 individuals, have been recognised as National Teachers, and have become agents of change for learning reform. Each National Teacher



is expected to conduct research over a 3-year period on means of improving the teaching-learning process and to disseminate the results of the study to at least 50 other teachers for application in their own classrooms.

(2) Master Teachers

As key agents for learning reform, 586 Master Teachers or Model Teachers were selected. Each Master Teacher is required to spend four months disseminating his learner-centred teaching techniques to at least 10 colleagues. These Master Teachers have so far directly assisted 8,848 colleagues.

The techniques used by the Master Teachers have been grouped into 15 teaching models, categorised under thinking and managerial skills, utilisation of authentic experience, integrated learning, and utilisation of learning sources. These teaching models have been published for dissemination. Between 2005 and 2006, the Master Teachers are participating in an ongoing project of the Office of the Education Council, "Research and Development of

Learner-Centred Learning Models", in which nine of the 15 models have been selected for presentation. Nearly 9,500 teachers as well as students in 90 schools have participated in this project. Further details of the project were mentioned in Chapter 5.

(3) Teachers of Thai Wisdom

In order to promote local knowledge and national arts and culture, a number of local knowledge experts have been honored as "Teachers of Thai Wisdom". The teachers so honored are experts in nine fields of knowledge: agriculture; industry and handicrafts; Thai traditional medicine; natural resources and environment management; community trusts and enterprises; fine arts; language and literature; philosophy, religion, and traditions; and nutrition.

From 2002 to 2006, 282 local experts have been recognised as Teachers of Thai Wisdom. These individuals are provided with financial support to carry out the three main tasks: (1) mobilising local wisdom in school settings; (2) integrating local knowledge into the school curriculum; and (3) establishing local wisdom learning centres and networks.

Local wisdom learning centres are a new approach in the teaching-learning process; they are accessible to all, and have the potential to become alternative schools for lifelong learning in the community. It is expected that these learning centres will enable learners to learn on their own according to their interests, potential, readiness and opportunities; and learners will be able to transfer knowledge acquired into the formal education system, apply the knowledge and skills of local wisdom in pursuing careers, and improve their quality of life.

At present, only 82 centres have been established, mostly at the teachers' residences; however, while the number of centres is still limited, the individuals, organisations, and networks involved are tremendous. Today, the networks comprise 5,848 organisations and 117,547 individuals, and the number is increasing every month. The models of teaching and bodies of knowledge gained from these Teachers of Thai Wisdom are being compiled by

the Office of the Education Council, and the relevant documents will soon be published for dissemination as case studies.

In conclusion, development of the teaching profession in Thailand has been carried out in line with the status of teachers, first announced on the occasion of World Teachers' Day in 1963 by UNESCO, ILO, UNICEF and UNDP.

6.6 Thailand Education Congress on the Occasion of World Teachers' Day

In recognition of the importance of the teaching profession, the Thailand Education Congress (TEC) on the Occasion of World Teachers' Day (October 5th) was initiated in 2005. National Teacher's Day has been celebrated annually on January 16th since 1957. Attended by more than 1,500 teachers and educators, the annual TEC Congress was organised with two-day seminars and a one-day excursion to learning sources and model schools.

The objectives of National Teacher's Day are to pay respect to elderly teachers and to present educational awards to outstanding teachers, principals and educational supporters from across the country. The objectives of the Thailand Education Congress are to express gratitude and pay respect to all teachers as well as to recognise their importance by organising various activities, such as seminars and exhibitions, for teachers. In addition, the Congress gives opportunities to teachers and educational personnel to exchange their teaching experiences and to be familiar with the global trends on education, in accord with the World Teachers' Day Declaration.

At the First Thailand Education Congress (TEC I) in honour of the 50th Birthday Anniversary of HRH Princess Maha Chakri Sirindhorn, Her Royal Highness was proclaimed the 'Light of Education' of Thailand, with the proclamation and enumeration of the many contributions Her Royal Highness has made to Thai education.

In each Congress, a Declaration will be made to highlight the necessity that Thai teachers recognise education as a tool to develop

the quality of life and address the problems regarding environmental degradation, natural disasters and violent conflicts in the world.

The main agencies under the Ministry of Education and educational institutions took turns hosting the Congress in collaboration with international organisations in Thailand, such as UNESCO-APEID and SEAMES, teacher associations and international schools. The main hosts and themes of the Congress between 2005 and 2007 are as shown in the following Table.

Table 6.4 Main Hosts and Themes of the Congress (2005-2008)

Title	Years	Main Hosts	Themes
TEC I	2005	Office of the Education Council, Suan Dusit Rajabhat University	Teachers and Educational Personnel Reform
TEC II	2006	Rajamangala University of Technology (9 campuses)	Education and Training for Global Change
TEC III	2007	Teachers' Council of Thailand, Suan Sunantha Rajabhat University	Education and Philosophy of the Sufficiency Economy
TEC IV	2008	Office of the Basic Education Commission, UNESCO-APEID, Srinakharinwirot University	Quality Innovation in Teaching and Learning

Source: Office of the Educational Council

It is imperative that teachers devote themselves to continuous self-development and that all concerned agencies take part in developing teachers and educational personnel. Such concerted efforts will contribute to the success of learning reform and the improvement of students, society and the nation.

Chapter 7

Resources and Investment in Education

The mobilisation of resources and investment in education, the allocation of budgets, and budget management are necessary mechanisms to consolidate educational reform efforts. To make these mechanisms effective, new laws and regulations as well as new approaches to financial administration must be addressed.









7.1 The Mobilisation of Resources and Investment for Education

In 2007, Thailand's resource management priorities were high quality human-based and social development as clearly addressed in the second strategy of the annual budget. The Government intended to spend 314,931 million baht, or 20 percent out of 1,566,200, to follow up the previous educational reform agenda. The areas covered included teacher and professional development, three-system development and its inter-linkage, and public-private cooperation on skills development. But most importantly, the aim of lifelong education was emphasised through self-inquiry, reading appreciation and moral education in the classroom as well as in real life situations. This budget allocation should result in improved knowledge, skills, and moral development of all learners.

The national budget to the education sector also includes subsidies of education provided by the Bangkok Metropolitan Administration as well as local authorities nationwide, according to the Decentralisation Act of 1999. Considering that education is a crucial factor in national development, the Thai Government has for the last decade allotted a generous proportion of the national budget for education. For education alone, the Government resumed its 2004 spending level of four percent of the Gross Domestic Product. (Figure 7.1)

Figure 7.1 Educational Budget as Percent of GDP (Fiscal Years 1998-2007)

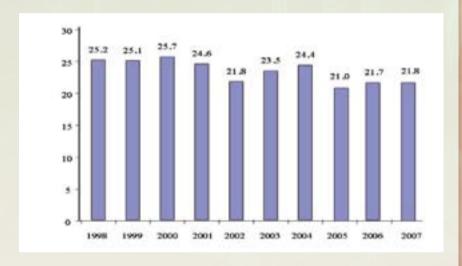


Source: Bureau of the Budget and NESDB

To reflect this allocation shift in real baht, 22.8 percent of the total budget is used by various public agencies to provide public services in schooling, non-formal, and informal systems.

This increasing trend in the past three years (2005, 2006, and 2007 at 21, 21.7, and 22.8 percent respectively) also indicates the continuing commitment of the Government to improve the quality of education after a 24 percent drop in public spending in this area in 2004. (Figure 7.2)

Figure 7.2 Educational Budget as Percent of National Budget (Fiscal Years 1998-2007)



Source: Bureau of the Budget

In terms of investment per level of education, financial contribution from the Government to higher education has been steady at 17.9 percent for university enrolment and student loans, while those of primary and second education have fluctuated in the past five years. The proportion allocated for basic education was decreased by two and a half percent in 2007. (Table 7.1)

Table 7.1 Percentage of Budget Allocation for Educational Provision, Fiscal Years 2003-2007

Dudget Allegations	Fiscal Year						
Budget Allocations	2003	2004	2005	2006	2007		
Basic Education	69.2	71.2	70.2	68.9	69.3		
Higher Education	14.2	13.7	15.3	16.3	17.9		
Unclassified Levels	1.4	1.4	1.3	0.1	0.1		
Others	12.3	11.8	11.7	11.4	12.7		

Source: Thailand's Budget in Brief, Fiscal Years 2005-2007









To address the need for basic education, the Government's school funding policy has reemphasised decentralisation and supply-side economy by increasing the Per Head Expenditure of state education institutions in November 2006. In the new scheme, a three year system of public expenditure per head has been adopted with the baseline calculation as shown in Table 7.2.

Table 7.2 Per Head Expenditure for Basic Education

System/Level of Education	Annual Per Head Expenditure (Baht)
Formal Education	
Pre-Primary	1,700
Primary	1,900
Lower Secondary	3,500
Upper Secondary	
- General	3,800
- Vocational	
a) Industry	6,500
b) Commerce	4,900
c) Home Economics	5,500
d) Arts	6,200
e) Agriculture	
- General	5,900
- Reform	11,900
Non-Formal Education	
Primary	1,100
Lower Secondary	2,300
Upper Secondary (General)	2,300

Source: Office of the Education Council

In conclusion, the Government will highlight the reform agenda with steady investment in basic education under the year by year system. In higher education, this data emphasises an increasing budget allocation to public universities.

Apart from general per head subsidies, the State is also responsible for the distribution of allocations for operating and capital costs of state educational institutions providing basic education and distribution of low-interest loans for students and private educational institutions.

The government budget for educational provision came not only from the Ministry of Education, but also from several other government agencies which contribute a significant amount for educational purposes.

Contributions from the private sector and society are comprised of non-government sources, private educational institutions, the business sector, communities and international organisations.









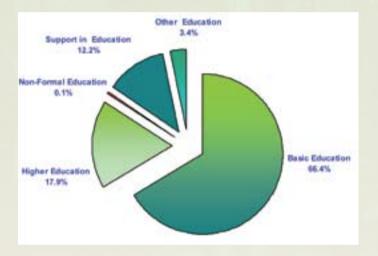




7.2 Allocation of Budget

As shown in figure 7.3, the largest proportion of educational funding in 2007 (66.4 percent) has been allocated to basic education. Higher education received 17.9 percent, while only 0.1 percent of the total educational budget was allocated to non-formal education.

Figure 7.3 Percentage Distribution of Educational Budget by Category (Fiscal Year 2007)



Source: Thailand Education Statistics Report (2007), OEC

7.3 Budget Management

The National Education Act requires that there be a system for effective budget management and oversight. In an attempt to comply with the Act, the Ministry of Education and the Budget Bureau implemented a number of projects to develop appropriate systems for auditing, monitoring and evaluation to ensure efficiency and effectiveness in the utilisation of budgetary allocations in basic education schools.

At the higher education level, the Office of the Higher Education Commission appointed a sub-committee consisting of representatives from the Office, the Budget Bureau, and the Department of the Comptroller General, along with accounting and computer systems specialists to supervise a pilot project to develop an effective higher education accounting system relating to budget, materials, finances, and fund accounts through a 3-dimensional cost-accounting model. The software has been specially designed for this accounting model in which costs are reflected in 3 dimensions, planning, organisational, and funding.

It is expected that after piloting and refining the system, universities will be able to apply it to calculate their actual operating costs for educational provision.

Continuous efforts are needed to take full advantage of resources and investment for education. Additional government support is greatly needed to enable private educational institutions to overcome the cost constraints at the both basic and higher education levels.





Chapter 8

Technologies in Education

In the past decade, the Ministry of Education has foreseen an increasing role of Information and Communication Technologies (ICT) in education. In a direct way, ICT enables learners, both inside and outside schools, to access a wide variety of information that goes beyond the traditional classroom setting. Students and workers, for instance, can search for cutting-edge knowledge from the Internet to expand their learning horizons as well as to develop the thinking skills and creativity needed for the 21st Century. Concurrently, teachers nationwide can utilise developed courseware and Learning Management Systems (LMS) to compile specific contents that effectively support their lesson plans and formative assessments. ICT can also be maneuvered by school principals and policymakers for the improvement of school budgeting as well as monitoring and reporting.

Never before have educational technologies changed so rapidly, affecting all categories of education, ranging from school infrastructure, curriculum and pedagogy, to professional development of teachers and learning assessment.

8.1 Development of National Policies and Plans

In October 2007, five main agencies of the Ministry of Education envisioned a futuristic strategy of ICT implementation, namely the ICT Master Plan for Education (2007- 2010) which promotes the extensive use of ICT and educational technologies in learning in three areas:



1. ICT-based Learning in Formal, Informal, and Non-formal Education: Teachers and learners are entitled to new learning and digital technologies that truly serve individual needs and vary with learning settings. Students and community members will be connected to the cyber world through LMS, e-Library, and the e-Content Centre, supported by the Ministry and the private sector. Increasingly high standards of technological accessibility will hopefully avert pedagogical practice from chalk-and-talk to a more leaner-centred oriented approach, guided by the 1999 National Education Act.

- 2. ICT and Effective Management at Schools and Educational Agencies: The Ministry aims to equip schools and field offices nationwide with modern-day technologies, including high-speed Internet, new administrative software, as well as the very best-performing networks. The new digital technologies can not only link up data among all educational sites but also make educational information electronically available to the public.
- **3. Investment in ICT Personnel and Skills:** Benefits derived from integrating ICT in the learning process will include developing students' and community members' thinking skills and innovation. The government will allocate ample resources to use ICT to advance teachers' curriculum development abilities. Groups of ICT technicians and learning experts will gradually be formulated at the school level for those who need help coping with new standards of teaching as well as learning with ICT.

At the end of this master plan, 80 percent of schools and teachers at all levels are expected to skillfully master ICT in their school administration and classroom activities, while half of the students and lifelong learners should be able to deploy technologies in their self-regulated learning. This policy should result in an increasing percentage of math and science graduates.

To push forward this Master Plan into programming, many measures have been undertaken by various agencies. For example, the Office of the Basic Education Commission, in partnership with INTEL Microelectronics (Thailand), Microsoft (Thailand), and the Association of Thailand Computer Industry (ATCI), launched the "School e-Centre Project" in 800 public schools. The project aims to narrow the digital divide with equipment packages, comprising a main computer with its networked computers, printers, and a high-quality television for learning in each school.

A package costs 200,000 baht and each donation from an individual or a private company can be used as a tax deduction up to 400,000 baht, according to a new tax regulation for educational donations. The concept of support from private donors has been used successfully in a Microsoft Partners in Learning Project

among 60 participating countries, including Thailand. The project awards 10,000 baht grants to a number of Thai teachers who excel in integrating ICT in their teaching, to be used in expanding their current innovations in schools and with 80,000 teachers nationwide through teaching profession networks.

Apart from ministerial initiatives for infrastructure improvement and professional networking, there are further benefits to be derived from the use of digital technologies. For instance, the Institute for the Promotion of Teaching Science and Technology (IPST), in cooperation with Australia's Curriculum Cooperation, launched a project, namely the Digital Curriculum Resource Initiative, to translate 17 learning programmes in mathematics, science, and technologies from English to Thai version to be piloted in 52 schools. Teachers can download these programmes, free of charge.

On a larger scale, two agencies of the Ministry of Education, namely the Office of the Permanent Secretary and the Office of the Basic Education Commission (OBEC) implemented the ICT School Model Project. In the project, teachers were encouraged to obtain formal sessions of training in any of five coaching universities or exchange learning among colleagues to aid in developing their own versions of learning programmes.

In addition, the ideas regarding the OBEC'S Digital Content Centre and teacher-developed websites were launched in 2006 to accommodate student's self-regulated learning and improve teacher's skills in using ICT in teaching.

8.2 Development of Infrastructure and Networking System

Learning with computers has been deemed as a central theme for knowledge and skills in the 21st Century. In 2007, the computer to Thai student ratio was 1: 46.56 while 24,322 schools provided learning sessions with networked computers.



Approximately 17,000 schools are still in critical need of computers or networks. Therefore, the Ministry plans to invest 10,194 million baht in computers, 985 million baht in networking, 610 million baht in professional development, 543 million baht in digital content, and 73 million baht for operational costs in public schools between 2008 and 2011.

Nevertheless, schools are not the only channel for digital learning. Apart from the increasing budget at the school level, lifelong education through the media is seen by the government as a new frontier since a great number of Thais access information for self-learning from television and radio. In the central region alone, the popularity of television is nearly two times greater than the voice-only technology, although this margin is less in other parts of the country. (Table 8.1)

Table 8.1 Number of Household Ownership of Radio Sets, Television and Computer, and Internet (Millions)

Region	Type of Media						
Region	Radio Sets	TV Sets	Computers	Internet			
Bangkok	1.378	1.951	0.717	0.484			
Central Region (Excl. Bangkok)	1.880	3.494	0.878	0.374			
North	1.913	2.902	0.567	0.208			
Northeast	2.574	3.934	0.675	0.186			
South	1.201	1.953	0.342	0.133			

Source: National Statistical Office

This data from the national census shows regional socioeconomic differences affect Internet access. Around 60 percent of Internet users are residents of Bangkok or the central region. For many Thai residents, lifelong education through the Internet cannot yet be accessed at home because fewer than half of household computers in each region, except for Bangkok, have been networked (only 2 in 8 in the Northeast and 1 in 3 in the South).

However, the 2007 survey conducted by the *National Statistical Office* indicated a significant improvement in Internet service as a nation. The percentage of networked households with computers increased continuously between 2004 and 2007, (11.7, 15.5, 18.1 and 20.4 percent respectively). In 2004, around 20 in 100 households with computers were networked, compared to around 12 in 100 in 2004.

In terms of skill improvement with ICT in the workplace, only 21.9 percent of working premises were computerised, and half of their computers were networked with the Internet. Among many service areas, hospitals had a far greater investment in this area than others. It is expected that up to a million computers have been used in the workforce.

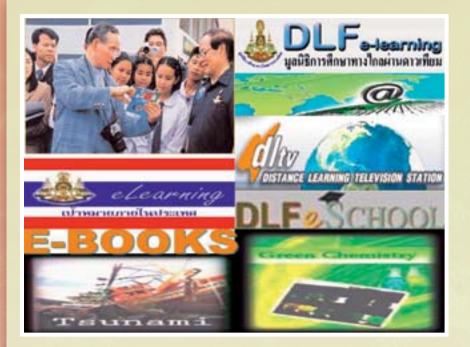
8.3 Distance Learning through ICT

Several agencies are involved in providing distance learning through ICT. The Office of the Non-Formal and Informal Education launched its e-library in the territory of informal education.



A total of 848 provincial and district libraries were digitally linked by housing e-books and web links in one website (www. elibrary.nfe.go.th) with the concept of On-line Public Library for Lifelong Learning.

After celebrating its first decade for learning via satellite, the Distance Learning Foundation (DLF) has explored a new territory in distance education by offering learning through video on demand. Besides broadcasting its normal programmes, the DLF collaborated with several organisations to provide developed programmes electronically.



Among these agencies, the Institute for the Promotion of Teaching Science and Technology offers teacher training programmes while Brand's Summer Camp Tutoring for the university entrance examination offers learning materials. Both can be downloaded from the DLF's website (http://www.dlf. ac.th).

In conclusion, the Ministry has implemented many programmes and strategies to narrow the digital divide, to train current and future teachers and to supply schools and communities with digital programming. Even though technology access still depends upon budgetary priorities and resource allocation, the Ministry has shifted its focus to software and peopleware to accelerate achievements of students and the workforce, in keeping with international developments in this area.

Chapter 9

Access to Education, Participation and Progression

This chapter examines access to education, participation and progression through student enrolment and transition rates, at basic and higher education levels, as well as numbers of those with special needs in formal basic and non-formal education.

9.1 Access to Basic Education

Basic education covers pre-primary education, six years of primary, three years of lower secondary, and three years of upper secondary education.

9.1.1 Access to Pre-Primary Education: Pre-primary education programmes, provided by early childhood development institutions, nursery schools, or kindergarten and learning centres, aim to prepare children in their physical, emotional, social, and intellectual development before they enter primary school. In addition to state-supported institutions, several private agencies and non-governmental organisations actively participate in early childhood development.

In 2006, the total number of children in the 0-5 age group in Thailand was 5,813,000. Among these, 2,975,000 children were in the 0-2 age group, and the rest or 2,838,000 children were aged between 3 and 5 years. (Table 9.1)

Table 9.1 Population of Children in the 0-5 Age Group (2002-2006)

Years	Number of Children in the 0-2 Age Group	Number of Children in the 3-5 Age Group	Total
2002	2,956,809	2,960,930	5,917,739
2003	2,902,709	2,987,270	5,889,979
2004	2,850,937	2,991,132	5,842,069
2005	2,954,000	2,936,320	5,890,320
2006	2,975,000	2,838,000	5,813,000

Source: Thailand Education Statistics Reports (2002-2006), OEC

Table 9.2 presents the number of students in formal schooling at the pre-primary level during the academic years 2001-2006, during which the percentage of students to total population was highest in 2001 and lowest in 2004.

Table 9.2 Number of Pre-primary Students (Academic Years 2001-2006)

Academic Years	Population (3-5 Age Group)	Number of Students	Percentage
2001	2,906,345	2,706,442	93.1
2002	2,960,930	2,682,835	90.6
2003	2,987,270	2,620,197	87.7
2004	2,991,132	2,466,693	82.5
2005	2,936,320	2,458,790	83.7
2006	2,838,000	2,497,928	88.0

Source: Educational Research and Development Bureau, OEC

9.1.2 Access to Primary Education: During the Academic Years 2001-2004, the percentage of students in primary education institutions had exceeded 100 percent because of the under-age and over-age student population added to the percentage of children in the 6-11 age group. In 2006, however, the percentage of students in primary education institutions decreased to 98.3 percent only. (Table 9.3)

Table 9.3 Enrolment Ratio at the Primary Level (Academic Years 2001-2006)

Academic Years	Population Aged 6-11	Number of Students	Percentage of Students Per Population
2001	5,835,023	6,056,422	103.8
2002	5,819,773	6,096,715	104.8
2003	5,808,015	6,065,590	104.4
2004	5,801,424	5,967,857	102.9
2005	5,841,796	5,839,088	100.0
2006	5,816,000	5,715,267	98.3

Source: Educational Research and Development Bureau, OEC

9.1.3 Access to Lower Secondary Education: The percentage of students in lower secondary classes compared to the population aged 12-14, increased from 2.34 million, or 82.2 percent, in 2001 to 2.74 million, or 86.7 percent, in 2006. (Table 9.4)

Table 9.4 Enrolment Ratio at Lower Secondary Level (Academic Years 2001-2006)

Academic Years	Population Aged 12-14	Number of Students	Percentage of Students Per Population
2001	2,845,317	2,338,650	82.2
2002	2,880,829	2,368,457	82.2
2003	2,913,538	2,464,547	84.6
2004	2,931,017	2,633,995	89.9
2005	2,930,209	2,633,884	89.9
2006	3,163,000	2,742,627	86.7

Source: Educational Research and Development Bureau, OEC

9.1.4 Access to Compulsory Education: The percentage of students per population in compulsory education (six years of primary and three years of lower secondary education) compared to the population aged 6-14, during the academic years 2001-2006, decreased slightly from 96.7 percent in 2001 to 94.2 percent in 2006. (Table 9.5)

Table 9.5 Enrolment Ratio in Compulsory Education (Academic Years 2001-2006)

Academic Years	Population Aged 6-14	Number of Students	Percentage of Students Per Population
2001	8,680,340	8,395,072	96.7
2002	8,700,602	8,465,172	97.3
2003	8,721,553	8,530,137	97.8
2004	8,732,441	8,601,852	98.5
2005	8,772,005	8,472,972	96.6
2006	8,979,000	8,457,894	94.2

Source: Educational Research and Development Bureau, OEC

9.1.5 Access to Upper Secondary Education: The proportion of students enrolled in upper secondary classes per population aged 15-17 during the academic years 2001-2006 also decreased, from 59.3 percent in 2001 to 58.8 percent in 2006. (Table 9.6)

Table 9.6 Enrolment Ratio at Upper Secondary Level (Academic Years 2001-2006)

Academic Years	Population Aged 15-17	Number of Students	Percentage of Students Per Population
2001	2,905,350	1,721,850	59.3
2002	2,841,550	1,707,459	60.1
2003	2,822,844	1,650,866	58.5
2004	2,841,472	1,650,639	58.1
2005	2,877,043	1,705,523	59.3
2006	3,153,000	1,853,529	58.8

Source: Educational Research and Development Bureau, OEC

9.1.6 Access to Basic Education: During the Academic Years 2001-2006, the percentage of students enrolled in basic education at all levels compared to the population aged 3-17, decreased slightly, from 12.82 million students, or 88.5 percent, in 2001 to 12.80 million, or 85.6 percent, in 2006. (Table 9.7)

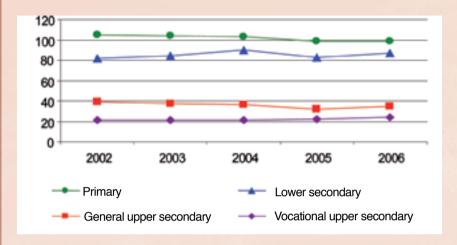
Table 9.7 Enrolment Ratio in Basic Education (Academic Years 2001-2006)

Academic Years	Population Aged 3-17	Number of Students	Percentage of Students Per Population
2001	14,492,035	12,823,364	88.5
2002	14,503,082	12,855,466	88.6
2003	14,531,668	12,801,200	88.1
2004	14,565,045	12,719,184	87.3
2005	14,585,368	12,637,285	86.6
2006	14,970,000	12,809,351	85.6

Source: Educational Research and Development Bureau, OEC

The following figure shows that the percentage of children accessing basic education increased in the Academic Year 2006, except for a slight decrease in the primary level.

Figure 9.1 Enrolment Rates in Basic Education (Academic Years 2002-2006)



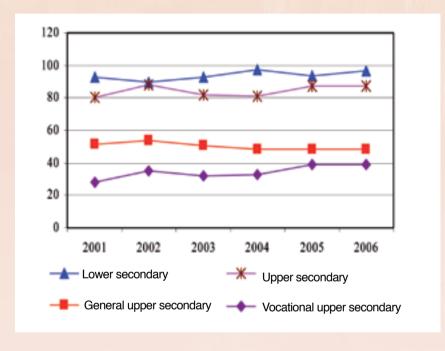
^{*} Pre-primary education was not included in this figure.

Source: Thailand Education Statistics Reports (2002-2006), OEC

The number of children aged 3-17 enrolled in basic education during the coming academic years is expected to increase because of the extension of free basic education from 12 to 14 years, as well as the extension of compulsory education from six to nine years. It is also very likely that students who have completed compulsory education will opt to continue on to three years of upper secondary instruction, and to pursue higher education at an increasing rate because the Income-Contingent Loan Fund will be available to pay for their tuition, and hence provide them with greater access.

When compared to the year 2001, the 2006 transition rates increased at the lower secondary and vocational upper secondary levels and slightly decreased at the general upper secondary level. The trend of transition rates in basic education during the academic years 2001-2006 is presented in Figure 9.2.

Figure 9.2 Transition Rates in Basic Education (Academic Years 2001-2006)



Source: Thailand Education Statistics Reports (2002-2006), OEC

When compared to the year 2002, the number of students completing primary and lower secondary levels in 2005 increased, while the number of students completing upper secondary level decreased slightly (Table 9.8).

Table 9.8 Completion of Basic Education (Academic Years 2002-2005)

Levels of Education	Academic Years						
Levels of Education	2002	2003	2004	2005			
Primary	980,297	977,402	974,187	979,803			
Lower secondary	736,391	757,104	775,461	842,409			
Upper secondary	522,428	505,770	483,413	478,193			
- General	352,324	344,860	343,351	319,250			
- Vocational	170,104	160,910	140,062	158,943			

Source: Thailand Education Statistics Reports (2002-2006), OEC

9.2 Participation in Basic Education of Children with Special Educational Needs

In this chapter, children with special educational needs excluded the gifted and talented children and focused only the participation in basic education of the disadvantaged and the disabled.

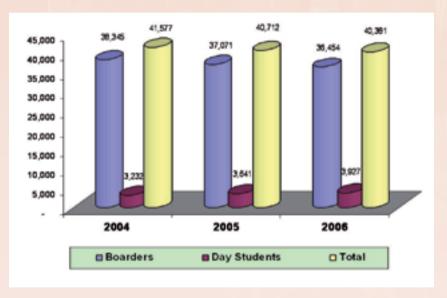


9.2.1 Special Education for Disadvantaged Students

Most of the disadvantaged students are studying in public regular schools, which are so-called "Inclusive Schools", while the rest are studying in schools that are specially arranged for them, such as the Welfare Schools and the Border Patrol Police Schools.

In the Academic Year 2006, Welfare schools took care of 40,381 disabled students, out of which 36,454 are boarders while the rest or 3,927 are day students (Figure 9.3).

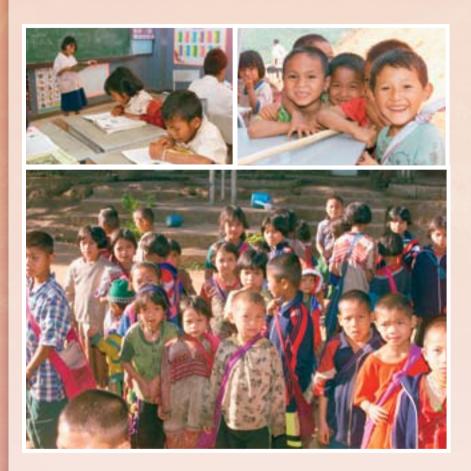
Figure 9.3 Number of Disadvantaged Students in Welfare Schools (Academic Years 2004-2006)



Source: Office of the Basic Education Commission

Approximately, 28,000 disadvantaged students are taken care of by the Border Patrol Police Schools. The disadvantaged students in Border Patrol Police Schools are generally children of the minorities and are not classified into ten groups, unlike those in Inclusive Schools and Welfare Schools.

Difficulties were also found in presenting the actual numbers of disadvantaged children having access to basic education provided by all agencies due to the different terms used to define different groups of these children.



As for the disadvantaged students in Inclusive Schools and Welfare Schools, they are divided into 10 types. When classified by type, it was found that the number of impoverished children, deserted children/orphans and children of the minorities were larger than other groups of disadvantaged students. The total number of disadvantaged students in Inclusive Schools and Welfare Schools increased from 2,833,996 in 2005 to 3,115,636 in 2006 and the number of female students was less than males in most disadvantaged groups (Table 9.9).

Table 9.9 Number of Disadvantaged Students in Inclusive and Welfare Schools, Classified by Type and Gender (Academic Years 2005-2006)

Types of		2005					2006			
Disadvantage	Incl	usive Sch	ools	Welfare	Total	Inch	ısive Scl	ools	Welfare	Total
Students	Male	Female	Total	Schools	Total	Male	Female	Total	Schools	Total
Children forced to enter the labour market	232	184	416	-	416	377	383	760	2	762
Children who are sex workers	101	253	354	165	519	233	302	535	134	669
3. Deserted Children/ Orphans	33,719	29,905	63,624	5,677	69,301	26,343	23,340	49,683	6,073	55,756
Children in Observation and Protection Centres	487	275	762	97	859	415	360	775		775
5. Street Children	994	678	1,672	79	1,751	900	588	1,488	73	1,561
6. Children affected by HIV/AIDS	11,502	10,880	22,382	530	22,912	9,223	8,421	17,644	135	17,779
7. Children of the Minorities*	27,351	25,511	52,862	5,037	57,899	25,137	24,047	49,184	4,542	53,726
8. Physically-abused Children	1,395	1,759	3,154	57	3,211	929	814	1,743	48	1,791
9. Impoverished Children	1,333,353	1,279,358	2,612,711	27,980	2,640,691	1,484,791	1,421,898	2,906,689	27,813	2,934,502
10. Children affected by narcotic drugs	9,427	4,822	14,249	111	14,360	8,947	4,861	13,808	382	14,190
11. Others	11,312	9,840	21,152	925	22,077	16,656	16,376	33,032	1,093	34,125
Total	1,429,873	1,363,465	2,793,338	40,658	2,833,996	1,573,951	1,501,390	3,075,341	40,295	3,115,636

Source: Educational Research and Development Bureau, OEC and Office of the Basic Education Commission

* Remarks: This table excluded 28,000 disadvantaged students who are taken care of by the Border Patrol Police Schools since they are not classified into comparable types.

9.2.2 Special Education for Students with Disabilities

Formal education for students with disabilities is provided in Inclusive Schools as well as Special Schools. Most of the students with disabilities study in a number of public regular schools which are so-called "Inclusive Schools".

The number of students with disabilities, from preprimary to upper secondary levels, in inclusive and special schools under the supervision of the Office of the Basic Education Commission decreased from 251,471 in 2005 to 236,497 in 2006.

The number of students with learning disabilities, which is equivalent to 113,479 in 2005 and 105,966 in 2006, evidently exceeds the number of those with other types of disabilities. Three other major groups of students with disabilities are those with mental impairments; physical impairments or health-related impairments; and visual impairments. (Table 9.10)







Table 9.10 Number of Students with Disabilities in Inclusive and Special Schools, Classified by Type and Level of Education (Academic Years 2005-2006)

Types of Students		Inc		Special	Total		
with Disabilities	Pre-	Primary	Lower	Upper	Total	Schools	(3) =
and Academic Years	primary		Secondary	Secondary	(1)	(2)	(1)+(2)
1. Visually-impaired							
• AY 2005	891	8,906	5,594	2,779	18,170	272	18,442
• AY 2006	846	8,452	5,370	3,153	17,821	281	18,102
2. Hearing-impaired							
• AY 2005	786	5,676	2,611	1,029	10,102	6,416	16,518
• AY 2006	712	5,138	2,563	1,063	9,476	6,348	15,824
3. Mentally-impaired							
• AY 2005	2,689	25,373	4,553	475	33,090	5,307	38,397
• AY 2006	2,367	22,845	4,943	662	30,817	5,558	36,375
4. Physically/health-Impaired							
• AY 2005	2,578	12,410	4,895	1,419	21,302	325	21,627
• AY 2006	2,550	11,932	4,832	1,387	20,701	254	20,955
5. Learning-disabled							
• AY 2005	5,450	89,524	17,042	1,449	113,465	14	113,479
• AY 2006	4,503	83,360	16,898	1,191	105,952	14	105,966
6. Verbally-impaired							
• AY 2005	2,777	7,828	2,258	383	13,246	3	13,249
• AY 2006	2,339	7,266	2,107	405	12,117	3	12,120
7. Autistic							
• AY 2005	859	3,140	348	68	4,415	451	4,866
• AY 2006	759	2,995	406	61	4,221	513	4,734
8. Behaviourally/							
emotionally disordered							
• AY 2005	1,983	7,257	3,282	692	13,214	5	13,219
• AY 2006	1,487	6,104	3,212	871	11,674	3	11,677
9. Multiple disabled							
• AY 2005	1,491	8,895	976	113	11,475	199	11,674
• AY 2006	1,263	7,846	1,183	140	10,432	312	10,744
Total : AY 2005	19,504	169,009	41,559	8,407	238,479	12,992	251,471
Total : AY 2006	16,826	155,938	41,514	8,933	223,211	13,286	236,497

Source: Educational Research and Development Bureau, OEC and Office of the Basic Education Commission

The number of students with disabilities in Inclusive Schools is greater than that in Special schools. Most of the students with disabilities in Special schools are boarders. In the Academic Year 2006, special schools took care of 13,286 disabled students, out of which 11,871 are boarders while the rest or 1,415 are day students. (Figure 9.4)

14,000 12,000 10,000 4,000 2,000 2,000 2004 2005 2006

Figure 9.4 Number of Students with Disabilities in Special Schools (Academic Years 2004-2006)

Source: Office of the Basic Education Commission

□ Boarders

Apart from formal education for students with disabilities, non-formal education for children with disabilities is also provided by Special Centres. Further information regarding the Special Centres was elaborated in Chapter 2.

Day Students

□ Total

9.3 Access to Higher Education

Access to higher education is essential for economic and social development of a country. As shown in table 9.11, student enrolment in higher education institutions, including that in open universities, rose continuously from 1,872,207 in 2001 to 2,430,551 in 2006.

Table 9.11 Student Enrolment in Higher Education Institutions (Academic Years 2001-2006)

Levels of		Academic Years							
Education	2001	2002	2003	2004	2005	2006			
Diploma	462,187	439,363	400,071	397,127	391,835	410,669			
Undergraduate	1,294,561	1,371,058	1,396,242	2,436,940	1,651,417	1,819,584			
Certificate	2,324	2,138	4,139	8,353	6,290	8,086			
Master Degree	108,055	108,774	120,116	142,845	160,695	178,362			
Doctorate	5,080	5,120	8,040	8,234	10,470	13,850			
Total	1,872,207	1,926,453	1,928,608	2,993,499	2,220,707	2,430,551			

Source: Thailand Education Statistics Reports (2001-2006), OEC

It is expected that there will be a larger number of high school graduates as a result of the extension of compulsory education from six to nine years and the provision of 12 years of free basic education as stipulated in the 1999 National Education Act.

According to the paper, 'Higher Education in Thailand and the National Reform Roadmap', it is estimated that the number of high school graduates will increase from 0.7 million in 2000 to 1.8 million in 2016, an increase of 150 percent in 15 years.

Demand for higher education should also increase because of the rising demand for highly-skilled manpower for modern economic development.

With a larger number of high school graduates going on to college and with greater educational needs for adults, higher education will be faced with increasing challenges.

9.4 Participation in Non-formal Education

The number of students studying in all non-formal education programmes increased significantly in 2006 over the number in 2001. (Table 9.12).

Table 9.12 Number of Students in Non-Formal Education Programmes, Classified by Level and Type of Education (Academic Years 2001-2006)

Levels and Types	Academic Years							
of Education	2001	2002	2003	2004	2005	2006		
1. Functional Literacy Programme (Equivalent to grade 4)	44,774	74,762	195,102	83,878	166,425	104,646		
2. Continuing Literacy Education	1,702,538	2,057,136	1,671,534	1,583,485	1,703,247	1,975,740		
2.1 Primary	171,675	284,982	116,338	131,961	176,715	360,899		
2.2 Secondary	1,530,863	1,772,154	1,555,196	1,451,524	1,526,532	1,614,841		
Lower Secondary	826,916	982,612	702,144	556,959	606,681	719,780		
Upper Secondary	703,947	789,542	853,052	894,565	919,851	895,061		
- General	683,171	777,854	841,410	882,809	904,641	882,125		
- Vocational	20,776	11,688	11,642	11,756	15,210	12,935		
3. Vocational Education/Training	2,205,826	1,972,619	2,629,321	3,135,326	3,397,242	3,750,622		
- ONFEC Programmes	1,159,712	1,012,449	1,505,254	1,913,438	2,039,498	1,699,501		
- OVEC Programmes	115,052	100,356	212,325	308,977	415,156	745,349		
- BMA Programmes	23,423	5,674	19,795	19,795	7,198	318,846		
- OPEC Programmes	907,639	854,140	891,947	893,116	935,390	986,926		
Total	3,953,138	4,104,517	4,495,957	4,802,689	5,266,914	5,831,008		

Source: Thailand Education Statistics Reports (2001-2006), OEC

The responses to the Ministry of Education's focus on teaching-learning reform include the ongoing improvements in quality of education and access, the further refinement of all types of educational curricula, and development of more effective teaching and learning approaches. This will contribute to all aspects of learner development, not only in academic achievement, but in the acquisition of general and life skills as well.

Chapter 10

The Outcomes of Education and Learning

Results of the first round of the external quality assessment (2001-2005) in 30,010 schools revealed that most Thai students tend to be good, healthy, and happy. However, learners did not achieve a high competency in the core subjects and are required to improve essential competencies, i.e. critical thinking abilities, solid knowledge foundation, and self-directed learning.

The outcomes of education and learning of the Thai people are presented here in terms of educational attainment and graduation from school, labour force participation, promotion of highly-skilled human resources, participation in Academic Olympiads and participation in robot competitions.

10.1 Graduation from School Education

When compared to 2003, there was an increase in the number of graduates at nearly all levels of education in 2005, except at upper secondary and lower-than-degree levels (Table 10.1).

Table 10.1 Number of Graduates by Level of Education (Academic Years 2003-2005)

Levels of Education	Academic Years					
Levels of Education	2003	2004	2005			
Primary	977,402	973,786	979,803			
Lower Secondary	757,104	775,798	842,409			
Upper Secondary	505,770	467,934	478,193			
- General	344,860	325,424	319,250			
- Vocational	160,910	142,510	158,943			
Higher Education	471,002	467,991	473,452			
- Lower-than-Degree	192,029	165,441	152,947			
- Bachelor's Degree	241,608	257,276	271,941			
- Certificate	2,667	4,045	4,897			
- Master's Degree	34,162	39,951	42,065			
- Doctorate Degree	536	1,278	1,316			

Source: Thailand Education Statistic Reports (2005-2006), OEC

Thailand's demand for an increase in the number of qualified workers with appropriate skills and basic knowledge indicates an urgent need to enhance the quality of vocational education and training as well as the number of students in vocational education. The number of students in vocational education, in both the formal and non-formal streams, rose from 1,024,587 in 2001 to 1,110,118 in 2006. (Table 10.2)

Table 10.2 Number of Students in Vocational Education, Classified by Level (Academic Years 2001-2006)

Levels of		Academic Years							
Education	2001	2001 2002 2003 2004 2005							
Certificate	592,370	606,075	591,350	611,906	698,156	764,042			
Diploma	431,200	370,809	389,712	361,624	349,241	345,392			
Higher Diploma	1,017	1,545	1,418	600	543	684			
Total	1,024,587	978,429	982,480	974,130	1,047,940	1,110,118			

Source: Thailand Education Statistic Reports (2001-2006), OEC

However, the total number of vocational education graduates declined, from 162,638 in 2001 to 149,749 in 2006 (Table 10.3).

Table 10.3 Number of Graduates in Vocational Stream, Classified by Level (Academic Years 2000-2004)

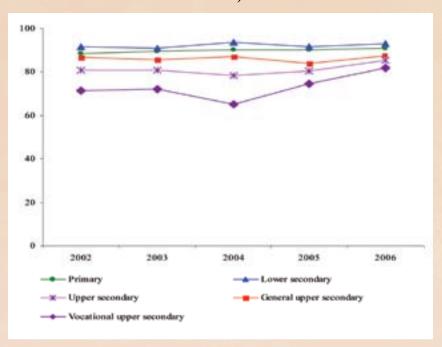
Levels of	Academic Years						
Education	2001	2001 2002 2003 2004 2005					
Certificate	85,609	86,702	92,133	87,896	86,688	82,693	
Diploma	76,865	72,676	77,453	67,864	65,305	66,919	
Higher Diploma	164	485	451	233	97	137	
Total	162,638	159,863	170,037	155,993	152,090	149,749	

Source: Bureau of Policy and Planning and Website, OVEC



When compared to the year 2002, the retention rates in all levels in 2006 increased, especially those in the vocational upper secondary levels which increase significantly (Figure 10.1). This situation reveals that Thai students take more of an interest in vocational education because its curriculum meets the current need of the labour market.

Figure 10.1 Retention Rates in Basic Education (Academic Years 2002-2006)



Source: Thailand Education Statistic Reports (2005-2006), OEC

10.2 Educational Attainment of Thai Population

The average years of education received by Thai people aged 15-59 have increased gradually as a result of greater efforts to provide both formal and non-formal education to all people (Table 10.4).

Table 10.4 Average Years of Educational Attainment of Thai Population (2002-2006)

Age Group	2002	2003	2004	2005	2006
15-59	8.1	8.3	8.4	8.6	8.7
- 15-39	9.3	9.5	9.7	9.9	10.1
- 40-59	6.3	6.4	6.6	6.9	6.9
60 and over	3.8	3.8	3.9	4.1	4.2

Source: Educational Research and Development Bureau, OEC

The average years of educational attainment of the Thai people are relatively low. However, the distribution of employed persons by level of educational attainment illustrated that the percentage of employed persons with secondary and higher education in 2006 was higher than that in 2005. (Table 10.5)

Table 10. 5 Percentages of Employed Persons by Level of Educational Attainment and Area (2005-2006)

Levels of Educational	Total			icipal eas	Non-Municipal Areas	
Attainment	2005	2006	2005	2006	2005	2006
Total	100	100	100	100	100	100
None	3.7	3.6	2.1	2.2	4.3	4.3
Less than primary	35.3	34.2	22.8	22.3	40.6	39.3
Primary	22.1	21.7	16.5	16.1	24.5	24.2
Lower secondary	13.7	14.0	15.5	15.1	13.0	13.6
Upper secondary	11.4	12.0	16.0	16.3	9.4	10.1
General	8.0	8.7	10.1	10.7	7.1	7.9
Vocational	3.3	3.2	5.8	5.5	2.2	2.2
Teacher training	0.1	0.0	0.1	0.1	0.1	0.0
Higher education	13.3	13.9	26.3	26.9	7.8	8.3
- Academic	7.0	7.4	16.1	16.7	3.1	3.4
- Higher Technical Ed.	4.0	4.1	6.7	6.8	2.9	2.9
- Teacher training	2.3	2.4	3.4	3.4	1.8	2.0
Others (including vocational	0.1	0.1	0.1	0.1	0.1	0.1
short courses)						
Unknown	0.4	0.5	0.8	1.0	0.3	0.2

Source: Reports of the Labour Force Survey, Whole Kingdom (Quarter 3: July-September 2005 and July-September 2006

10.3 Labour Force Participation

The labour force participation rates by educational attainment can be used to indicate the extent to which the educational system succeeds in meeting the minimum requirements of the labour market. According to the projection of the Thai labour force from 2005 to 2025, a positive sign for the future economic development in

Thailand is the remarkable increase in the proportion of those with general upper secondary education from 8.7 percent in 2005 to 21.3 percent in 2025. (Table 10.6)

Table 10.6 Proportion of Projected Labour Force by Educational Attainment (2005-2025)

Levels of Educational Attainmen	2005	2010	2015	2020	2025
None	3.0	2.5	1.9	1.4	0.8
Less than primary	34.7	26.9	19.0	11.1	3.3
Primary	23.3	24.4	25.5	26.6	27.7
Lower secondary	13.8	15.2	16.6	17.9	19.3
Upper secondary - General - Vocational and Teacher training	8.7 3.4	11.8	15.0 4.0	18.1 4.3	21.3 4.6
Tertiary	12.9	15.5	18.0	20.5	23.0
Others	0.1	0.1	0.1	0.1	0.2
Total	100.00	100.00	100.00	100.00	100.00

Source: Patcharawalai Wongboonsin, Education and Training as Key Strategies for the Thai Workforce in the 21st Century

In 2006, the percentage of the population in the total labour force aged 15 years and over was 73.0. Remarkably, the labour force participation rates of those who completed teacher training at the upper secondary level in municipal areas in 2006 was higher than the previous year. In contrast, when compared to the year 2005, the labour force participation rates of those who completed teacher training at the upper secondary level in non-municipal areas in 2006 decreased significantly. (Table 10.7)

Table 10.7 Labour Force Participation Rates by Level of Educational Attainment and Area (2005-2006)

Levels of Educational	Total		Municipal Areas		Non-Municipal Areas	
Attainment	2005	2006	2005	2006	2005	2006
Total	73.7	73.0	71.2	70.7	74.8	74.0
None	49.6	50.2	40.8	41.6	51.9	52.6
Less than primary	74.5	73.4	66.2	65.6	76.9	75.6
Primary	82.4	82.4	80.5	79.8	82.9	83.2
Lower secondary	62.3	61.1	62.6	61.2	62.1	61.0
General upper secondary	68.7	68.4	62.0	60.7	73.4	73.9
Vocational upper secondary	71.5	70.5	74.7	74.4	68.3	66.6
Teacher training upper secondary	59.0	56.0	39.8	57.8	74.4	54.0
Academic higher education	89.9	89.5	88.7	88.7	92.7	91.1
Higher Technical Education	87.0	85.4	85.6	86.4	88.4	84.3
Higher teacher training	86.3	87.0	81.6	81.7	90.4	91.4
Others ¹	85.8	78.5	78.5	87.5	90.5	72.9
Unknown	77.0	80.3	72.9	79.4	83.2	82.0

Source: Reports of the Labour Force Survey, Whole Kingdom: Quarter 3 (July-September 2005 and July-September 2006)

The labour force participation rates were highest among those who had completed higher education. The underlying causes were that the monetary incentive to participate is greater for individuals with higher qualifications since earnings tend to increase with educational attainment. In addition, those individuals often work at more interesting and stimulating tasks, and hold positions of higher responsibility, which increases their motivation to remain in the labour force

However, the participation rates are also high among those who completed primary and lower than primary education since job opportunities for unskilled workers can be easily found in the agricultural sector which is still important for the economy of Thailand.

Those who completed lower secondary and upper secondary education as well as teacher training seem to be more interested in continuing education rather than entering the labour market.

10.4 Promotion of Highly-Skilled Human Resources

Human resources with higher educational attainment tend to have the skills necessary for the labour market. Highly-skilled human resources are essential to the national economic development and competitiveness in the global context, especially in this knowledge-based era.

Human resource development was a focus of the 10th National Economic and Social Development Plan (2007-2011), with 2 priorities including: 1) To develop humanity and society towards a knowledge-based and learning society; and 2) To develop the potential, competency and skills of people to promote the competitiveness of the country. Such skills as analytical skill, innovation, problem solving, decision-making, team work, ethics and discipline are necessary for working with the new technology as well as increasing productivity.

The 10th Plan also indicated the following guidelines for human resources: 1) Setting up a system of learning and training that can work with new technology; 2) Networking from the basic to the professional level, and linkages between government, the private sector, and the community for labour development; 3) Organising short courses in training, promoting training, workplace learning, and the learning centre; 4) Setting up a system that matches the skills or competency to the wage structure; and 5) Extending the skill training to disadvantaged people who are employees or self-employed people.

The current knowledge-based economy counts on efficient resource utilisation as well as quality human resources with the ability to create innovation and knowledge. Hence, an educated, creative, and skilled labour force is essential in the knowledge-based economy.

Concerned agencies make great efforts to adapt relevant curriculum in education, training, and retraining to equip their human resources with appropriate skills and competency to sustain the competitiveness of Thai industries and quality of life. The idea is to move the Thai economy away from low skilled labour-intensive to a value-added and competitive industry based on identity, managerial expertise and higher technical skills of labour.

Formal, non-formal, informal education and intensive training on workforce skills provide basic, general and specialised skills and are key strategies to enhance competencies, quality and productivity of the workforce as well as to improve the quality of life in the 21st century. In this regard, several concerned agencies also implemented several policies and projects to prepare qualified people through education in response to an increasing social demand for highly-skilled workers. The Office of the Vocational Education Commission sets four main goals for improving the professional skill of vocational students as follows:

- 1) Increase of the Number of Vocational Students: The strategies of this goal are to: provide universal access to technical and vocational education and training; promote learning by doing and earning while learning; focus on validation of experience; promote positive attitude towards vocational education; improve and design curricula more relevant to the current economic structure; and cooperate with concerned agencies to provide vocational education.
- 2) Quality Development of Vocational Education: The strategies of this goal are to: establish a good image of vocational education; improve teaching and learning management as well as improve the examination process; develop occupational competency standards, professional qualifications, vocational standards and competency-based curricula; create a network for participation in vocational education among business enterprises, communities, localities, and domestic and international networks; improve knowledge management; conduct quality assessment of products and services; and expand Dual Vocational Training with the cooperation of business enterprises and communities.

- **3) Community Services:** The strategies of this goal are to: integrate occupational training for poverty alleviation; offer a higher degree in the agricultural field; add value to the "One Tambon (district) One Product" scheme; establish Green Vocational Education to create a good environment; and establish Vocational Education Effort to undertake community service work.
- 4) New Entrepreneur Preparation: The strategies of this goal are to: formulate and develop a new entrepreneur network; create and fund a business knowledge channel; and initiate "One College One Company" project.

The aim of these goals is the increased potential of the workforce in terms of specialised professional skills, language proficiency, computer literacy, business plan and basic research skills, good morality and a developed personality.

The Office of the Higher Education Commission carried out two distinguished projects aimed at preparing highly-skilled human resources in response to greater demand for highly-skilled workers in the labour market:

1) Co-operative Education in Higher Education Institutions: This project includes educational provision both in normal classrooms and in the workplace under the cooperation of various business enterprises. In this cooperation, students are required to practice their work as temporary employees in a workplace so that they will be able to acquire beneficial experiences from their work and develop themselves upon completion of their studies.

Higher education institutions joining this project are encouraged to develop modern curricula conforming to the current situation. In addition, public and private agencies have an opportunity to participate in quality development of graduates. This project aims to prepare highly-skilled graduates whose competencies and potentials respond to the need of the labour market.

2) The University Business Incubator Project

The University Business Incubator Project acts as a link between university research and development studies and industry to generate new products and innovation, and to create and develop entrepreneurs.

The project aims to increase the capacity for economic competitiveness at the local community and the macro-levels in response to the national policy on the development of industrial clusters.

Around 15 incubator units were set up in universities with the capacity to implement the project, and at least 30 start-up companies, comprising 75 joint-ventures and involving 1,000 students and graduates, are participating between 2004 and 2006.

For maximum efficiency, the project links mainly with local companies and focuses on only a single stream of business or a few clusters that directly correspond to the fields in which the participating universities have expertise.

Community colleges also contribute to the preparation and development of the workforce for the economic sector both in the agricultural and industrial fields with the emphasis on professional preparation for entrepreneurship.

In addition, the Department of Skill Development under the supervision of the Ministry of Labour also offers various courses of vocational and skill training. Such courses comprise 20 percent theory and 80 percent practice. There are three types of vocational and skill training as follows: 1) Pre-Employment Training: This vocational training provides the prospective new labour market entrants with basic skills, knowledge, potential and positive attitudes towards their careers to serve the demand of the labour market. Apart from participating in skill training sessions for 280 hours or two months, normally conducted in institutions and regional institutes, trainees are obligated to participate in one to four months of an in-plant training course, conducted by the enterprises. Successful trainees will be classified as basic skilled labour; 2) Upgrade Training: Mostly provided to existent labour force with the aim to enhance

their knowledge skill and potential to match their job specification including the rapid change of technology, upgrade training courses are normally conducted for 12 hours or more; and 3) Re-training: This training is provided for employed persons or those with keen interest in other sidelines or new jobs. Upgrade training courses are normally conducted for 6 hours or more.

10.5 Participation in Academic Olympiads

The International Academic Olympiads are a group of worldwide annual competitions in various areas of science which are designed for the best upper secondary students from each participating country selected through internal National Science Olympiads. Out of 12 areas of these international competitions, five areas are well-known in Thailand, comprising Mathematics, Chemistry, Informatics, Physics, and Biology.

1989 was the first year Thailand participated in the 30th Mathematics Olympiads in the Federal Republic of Germany with six representatives. In 1990, Thailand participated in the 31st Mathematics Olympiad, 22nd Chemistry Olympiad and 21st Physics Olympiad. In 1991, Thailand participated in all five subjects for the first time, namely the 32nd Mathematics Olympiad, 23rd Chemistry Olympiad, 22nd Physics Olympiad, 3rd Computer Olympiad and 2nd Biology Olympiad. Since 1992, Thailand has continually participated in all five subjects.

The selection process of Thai representatives for participation in International Academic Olympiads is divided into 3 steps: national Olympiad competitions, intensive training camps to select four to five best students in each subject, and participation in International Academic Olympiads.

The main objectives of participation in International Academic Olympiads are to 1) improve Mathematics and Science Education in Thailand; 2) provide Thai students with great opportunity to show their academic competence among other top students around the world; 3) promote the exchange of pedagogical and scientific experiences among teachers and students; and 4) stimulate contact and mutual understanding between Thai representatives and those from other countries.



The Promotion of Academic Olympiads and Development of Science Education Foundation under the Patronage of Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra aimed at promoting and developing students' competencies in Science and Mathematics in the international arena and supported Thai students who have participated in the International Academic Olympiads since 1989. Besides funding, Her Royal Highness Princess also awarded certificates to the finalist participants and all medal winners.

Between 1989 and 2007, Thai students joining International Academic Olympiads brought pride to Thailand; they were able to manifest their excellence in these prestigious events and were awarded with several types of medals and certificates for their best performances in different fields of competition. (Table 10.8)



Table 10.8 Number of Awards for Thai Students in International Academic Olympiads (1989-2007)

		·ds			
Fields	Gold Medal	Silver Medal	Bronze Medal	Certificate	Total
Mathematics	3	19	38	23	83
Physics	7	12	11	17	47
Chemistry	10	25	24	3	62
Biology	21	25	19	0	65
Informatics	8	20	29	0	57
Total	49	101	121	43	314

Source: Institute for the Promotion of Teaching Science and Technology's Website

10.6 Participation in Robot Competitions

Thai students of all educational levels have had increased interest in participation in robot competitions during the past 10 years. There are various kinds of robot competitions both at the national and the international levels which provide valuable opportunities for Thai students to develop and exhibit their technological performance.

In addition, robot competitions help enhance key skills, namely teamwork, problem-solving, and innovative thinking. The technologies used in competitions will also help prepare students for their future careers.



The Office of the Vocational Education Commission (OVEC) has a project called the "New Generation's Invention Contest" with the aim to prepare inventors in the vocational stream, to strengthen students' teamwork skill, to create standard inventions, and to encourage the students to develop their inventions which can be applied in real life. Each year, around 180 inventions are selected to join various national competitions.

At the international level, Thai youths also participated in many kinds of international robot competitions and achieved several awards.

In the World Robocup Rescue 2006 Competition which was held between June 13 and 18, 2006 in Germany, Thai-made Rescue Robots emerged as the champions of this competition, beating other competitors by a wide margin. In the competition which attracted 22 teams from various countries, the Thai team named the "Independent Team" earned the highest score in the final round. All team members are either alumni or students at King Mongkut's Institute of Technology North Bangkok. The prestigious award proved that Thai abilities were competitive at an international level.

In the World Robocup Rescue 2007 Competition held at the Georgia Institute of Technology in Atlanta, the United States of America, the "Independent Team" brought pride to Thailand once again by winning the first prize for their search-and-rescue robot. The third and fourth prizes also went to Thais, to the "CEO Mission II Team" from the Thai Chamber of Commerce University and the "Ideal Team" from King Mongkut's Institute of Technology North Bangkok.

ABU Asia-Pacific Robot contest, established in 2002 by Asia-Pacific Broadcasting Union (ABU), is a robot competition for students in vocational and higher education. Each year, ABU member countries will rotate the organisation of the competition.

In 2003, Modern Nine TV channel on behalf of Thailand organised the ABU Asia-pacific Robot Contest 2003 Bangkok under the theme of "Takraw Space Conqueror" attracting 19 countries including Thailand. In this competition, the Thai team named "Nai Hoy Thamil" from Sakolnakorn Industrial and Community College was the champion and won the Best Performance Award while the "Yuppicide" team from King Mongkut's Institute of Technology North Bangkok was the first runner up.

In the ABU Robot contest 2004 Seoul held by South Korea, the Thai team called "Hoi Lord 2004" from Samutsongkhram Technical College won the "Samsung Award" as a consolation prize. In 2005, the Thai team qualified for the semi-final round of the ABU Robot Contest 2005 hosted by the People's Republic of China and received the "Best Engineering Award". In the ABU Robot Contest 2006 Kuala Lumpur under the theme of "Building the World's Tallest Twin Tower", the Thai team called "Hoi Lord" from Samutsongkhram Technical College won the first prize for the second time.

Another robot competition in which Thai youths have opportunities to present their abilities in the international arena is the World Robot Olympiad (WRO).

With the purpose of promoting innovation and education, this competition is established for students of primary, lower secondary, and upper secondary levels around the world to compete using their robotic skills. The competitors have to assemble robots with LEGO plastic

bricks and controllers, such as light, sound, and temperature sensors. The robots must accomplish the assigned missions by themselves. Organised for the first time in Singapore in 2004, this competition welcomed students from 13 countries including Thailand.

Thai teams were awarded five medals. Students of St. Gabriel School won one gold medal; students of Prayamonthatradsripijit School, Assumption School and Triam Udom Suksa School won two silver medals; and students of Chaiyabhumi Pukdeechumpol School won one bronze medal.

In 2005, Thailand's Science Centre for Education hosted the World Robot Olympiad 2005 because of the great success of Thai representatives in 2004. There were around 500 students from 13 countries joining this competition.

Once again, Thai students of each educational level earned many prestigious awards. For example, in the primary category, the Thailand "Prachaniwet School" team won the Tug-of-War Battle. In the lower secondary category, the Thailand "Prayamonthat 1 Team" from Prayamonthatradsripijit School emerged as the first runner up of Bangkok Traffic. In the upper secondary category, the teams from Thailand came in first, second, and third positions in the Senior Hockey Practice.

In the World Robot Olympiad 2006 held in Nanking, the People's Republic of China, many teams representing Thailand won various awards, such as the bronze medal for "PN Junior Robot 4 Team" from Prachaniwet School in the primary category; the gold medal for "Khon Ma Klai Robot Team" from Chaiyabhumi Pukdeechumpol School in the lower secondary category; and the Excellent Shield for the "CB Robot Team" from Chaiyabhumi Pukdeechumpol School in the upper secondary category.

In 2007, three upper secondary students from Narinukul School represented Thailand in the WRO 2007 held in Taipei, Taiwan and won the Best Popularity Award.

These robot competitions encourage Thai students to develop their various skills, such as creative thinking, problemsolving, and teamwork skills. It also brings together students from around the world to interact and engage in robot competitions. The

competitions help Thai representatives to be enriched with technical and engineering skills and learn about different culture through the social activities.

For the country to effect the transformation into a knowledge-based society, all types of education and skill training must be available for Thai people. This is made possible through the continuous and concerted efforts of all parties to ensure the increased educational attainment of the Thai people and the promotion of highly-skilled human resources.





PART III HIGHLIGHTS OF CURRENT EFFORTS AND FUTURE PERSPECTIVES

Chapter 11

International Education and International Cooperation in Education

During the last decades, international education has become a growing business as a result of the globalisation and liberalisation process that has caused freer flow of cross-border education. Consequently, agencies involved in the provision of education must improve quality to compete in the international arena. At the same time, international cooperation in education is essential to educational development in all countries. This chapter attempts to highlight the current efforts of concerned agencies in international education and international cooperation on education.

11.1 International Education

Several public and private agencies are involved in promoting international education services available in Thailand. These include the Office of the Private Education Commission, the Office of the Higher Education Commission, the Department of Export Promotion and International School Association of Thailand.

A small number of international schools in Thailand use both Chinese and English as medium of instruction. However, English is mainly used as the medium of instruction at basic education level in international schools and at tertiary level through international programmes offered by universities in Thailand.

1) International Schools Providing Basic education

International schools providing basic education in Thailand are under the supervision of the Office of the Private Education Commission. Policies, rules, regulations, and standards for the establishment of international schools or colleges are set by the Ministry of Education in accordance with a Council of Ministers Resolution

Some of the main educational systems offered at international schools in Thailand are: the American school system; the Advanced Placement Programme; the British National Curriculum; the International General Certificate of Secondary Education; and the International Baccalaureate. The number of international schools in Thailand gradually increased from 91 schools in 2004 to 108 schools in 2007. (Table 11.1)

Table 11.1 Number of International Schools Providing Basic Education (Academic Years 2004-2007)

Academic	Number of International Schools				
Years	Bangkok	Total			
2004	66	25	91		
2005	71	30	101		
2006	76	30	106		
2007	77	31	108		

Source: Office of the Private Education Commission

According to the Office of the Private Education Commission, there are 108 international schools in Thailand in the Academic Year 2007. Among these, 77 international schools are located in Bangkok and the rest located in other provinces. These

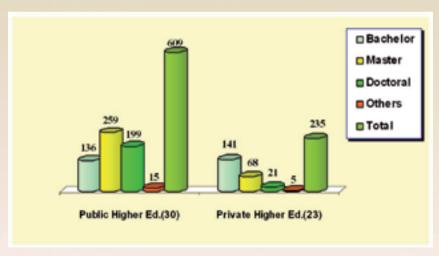
schools employed 2,493 teachers and provide basic education, by using English as the medium of instruction, for 25,453 students. The average tuition fee is from 3,000 to 14,000 US Dollars.

The International School Association of Thailand, which was established in 1994, currently has 86 out of 108 international schools as its members. The quality of education offered in member schools of this Association has been recognised by accreditation bodies, such as the Western Association of Schools and Colleges, the New England Association of Schools and Colleges and the Council of International Schools.

2) Tertiary Level International Programmes

According to "Study in Thailand 2006-2007", published by the Office of the Higher Education Commission, a total of 844 international programmes were offered in 2006 by 53 higher education institutions. Among these, 609 international programmes were offered by 30 public universities while the rest were offered by 23 private universities. (Figure 11.1)

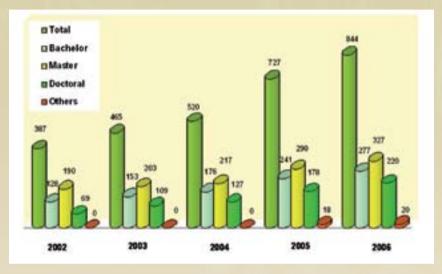
Figure 11.1 Number of Foreign Students in Tertiary
Level International Programmes by Types
of Higher Education Institutions (Academic
Year 2006)



Source: Office of the Higher Education Commission

Foreign and Thai students can take courses for credits from international programmes, using English as the medium of instruction. Offered mostly at the Master Degree level, the number of international programmes steadily increased, from 387 programmes in 2002 to 844 programmes in 2006. (Figure 11.2)

Figure 11.2 Number of Tertiary Level International Programmes by Level of Study (Academic Years 2002-2006)



Source: Office of the Higher Education Commission

Both foreign and Thai students enrolled in international programmes. The tuition and other fees vary from university to university. The average tuition and other fees charged by public and private universities are shown in table 11.2.







Table 11.2 Average Tuition and Other Fees Charged by Public and Private Universities (in US Dollars)

Levels of Education	Average Fees Charged by Public Universities	Average Fees Charged by Private Universities
Bachelor's Degree	 USD 25-50 per credit hour (Tuition Fee) USD 125-400 per annum (Other Fees) 	 USD 30-85 per credit hour (Tuition Fee) Data regarding other fees is not available.
Master's Degree	• USD 1,000-2,000 per annum (Tuition Fee included)	 USD 75-125 per credit hour (Tuition Fee) USD 325-400 per annum (Other Fees)
Doctoral Degree	• USD 5,000 per annum (Tuition Fee included)	The data is not available.

Source: Office of the Higher Education Commission



3) Foreign Students in Thai Higher Education Institutions

Annually, the Office of the Higher Education Commission conducted a survey of 90 higher education institutions with foreign students. It was found that for three consecutive years, the institutions having the highest number of foreign students were Assumption University and Mahidol University. Top ten universities for foreign students studying in Thailand between 2004 and 2006 are shown in table 11.3.

Table 11.3 Top Ten Universities for Foreign Students Studying in Thailand (Academic Years 2004-2006)

No. 2004			2005		2006		
No.	Institutions	Total Institutions		Total	Institutions	Total	
1.	Assumption University	1,772	Assumption University	2,248	Assumption University	2,406	
2.	Mahidol University	308	Mahidol University	476	Mahidol University	734	
3.	Thammasat University	296	Chulalongkorn University	243	Chulalongkorn University	419	
4.	Webster University (Thailand)	185	Webster University (Thailand)	217	Thammasat University	397	
5.	Stamford International University	168	Kasetsart University	179	Mission College	365	
6.	Kasetsart University	160	Thammasat University	170	Siam University	250	
7.	Mission College	159	Siam University	170	Rangsit University	219	
8.	Chulalongkorn Universit	153	Rangsit University	148	University of the Thai Chamber of Commerce	186	
9.	Chiang Mai University	152	Chiang Mai University	146	Bangkok University	177	
10.	Bangkok University	139	Bangkok University	123	Stamford International University	173	

Source: Office of the Higher Education Commission

Between 2004 and 2006, ten countries with the highest number of students studying in higher education institutions in Thailand were surveyed. For three consecutive years, most of the foreign students studying in Thailand came from China and Myanmar.

In 2006, 8,534 foreign students studied in higher education institutions in Thailand. The number almost doubled that of 4,334 in 2004. Out of 8,534 foreign students, around 77 percent or 6,578 students were of ten nationalities.

These include 3,329 Chinese and Burmese students (39 percent); 2,062 Vietnamese, American, Lao, and Japanese students (24.2 percent); and 1,187 Indian, Cambodian, Korean and Bangladesh students (13.9 percent). The rest, equivalent to 22.9 percent, or 1,956 foreign students, were of other nationalities. (Table 11.4)

Table 11.4 Countries with the Highest Number of Students Studying in Higher Education Institutions in Thailand (Academic Years 2004-2006)

No	2004		2005		2006	
No.	Countries	Number	Countries	Total	Countries	Number
1.	China	1,189	China	1,615	China	2,698
2.	Myanmar	346	Myanmar	489	Myanmar	631
3.	USA	331	Laos	436	Vietnam	599
4.	Vietnam	308	Vietnam	409	USA	521
5.	Laos	229	Japan	307	Laos	493
6.	India	227	USA	290	Japan	449
7.	Japan	219	India	246	India	401
8.	Cambodia	158	Taiwan	180	Cambodia	364
9.	Taiwan	155	Cambodia	166	Korea	213
10.	Korea	120	Bangladesh	164	Bangladesh	209
	Total (1-10)	3,282	Total (1-10)	4,302	Total (1-10)	6,578
	% of Total	75.73	% of Total	76.81	% of Total	77.10
	Total	4,334	Total	5,601	Total	8,534

Source: Office of the Higher Education Commission

The top ten fields of study among foreign students studying in higher education institutions in Thailand between 2004 and 2006 were also surveyed. It was found that Business Administration is the most popular field of study for three consecutive years. (Table 11.5)

Table 11.5 Top Ten Fields of Study among Foreign Students Studying in Thailand (Academic Years 2004-2006)

N.T.	2004		2005		2006	
No.	Fields of Study	Total	Fields of Study	Total	Fields of Study	Total
1.	Business Administration	350	Business Administration	279	Business Administration	1,148
2.	Marketing	230	Marketing	267	Thai Language	832
3.	Business English	135	Thai Language	214	Marketing	414
4.	General Management	117	Business English	159	International Business	241
5.	International Business Management	114	Business	134	Thai Studies	230
6.	International Business	106	Business Administration	130	Business English	179
7.	Information Technology	97	International Business Management	127	Management	168
8.	Thai Studies	93	Computer Science	101	International Business Management	139
9.	Finance and Banking	92	Information Technology	95	Business	126
10.	Hotel Management	79	General Management	93	Accounting	116

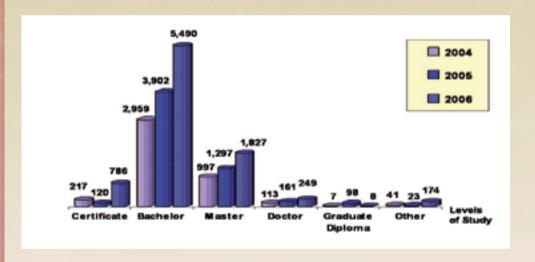
Source: Office of the Higher Education Commission



When classified by levels of study, it was found that the number of foreign students studied at the bachelor degree level exceeds those studied at other levels in higher education institutions in Thailand.

The number of foreign students studied at the bachelor degree level dramatically increased from 2,959 in the academic year 2004 to 5,490 in the academic year 2006. (Figure 11.3)

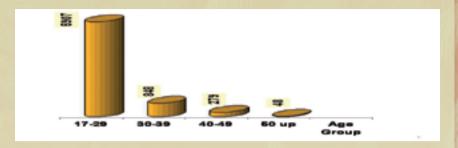
Figure 11.3 Number of Foreign Students in Higher Education Institutions by Levels of Study (Academic Years 2004-2006)



Source: Office of the Higher Education Commission

When classified by age group, it was found that most of the foreign students studying in higher education institutions in Thailand in 2006 aged between 17 and 29. (Figure 11.4)

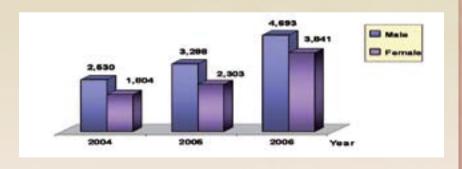
Figure 11.4 Number of Foreign Students in Higher Education Institutions by Age Groups (Academic Year 2006)



Source: Office of the Higher Education Commission

When classified by gender, it was found that the number of male students is greater than that of female students. However, the number of female students studying in higher education institutions in Thailand continuously increased from 1,804 in 2004 to 2,303 and 3,841 in 2005 and 2006 respectively. (Figure 11.5)

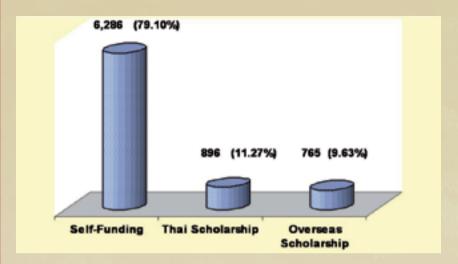
Figure 11.5 Number of Foreign Students in Higher Education Institutions by Gender (Academic Years 2004-2006)



Source: Office of the Higher Education Commission

Educational expenses of foreign students studying in higher education institutions in Thailand came from three sources as follows: 1) Self-funding (79.1 percent); 2) Thai scholarship (11.27 percent); and 3) Overseas scholarship (9.63 percent). (Figure 11.6)

Figure 11.6 Number of Foreign Students in Higher Education Institutions by Source of Educational Expenses (Academic Year 2006)



Source: Office of the Higher Education Commission

11.2 International Cooperation in Education with International/Regional Organisations

To enhance the development of education in the country, Thailand has made use of foreign loans or international funds such as those from the World Bank, Asian Development Bank, the Japanese Overseas Economic Cooperation Fund and countries such as Australia, the United Kingdom, France, Germany, Japan and the United States of America.

Thailand also cooperates bilaterally and multilaterally with various foreign, regional, and international organisations focusing on educational improvement, some of which are presented in this section.

• The United Nations Education, Scientific and Cultural Organisation (UNESCO)

Thailand has been a member of UNESCO since 1949. The Thai National Commission for UNESCO operates through

its Secretariat Office, attached to the Bureau of International Cooperation in the Ministry of Education.

In March 2005, *Her Royal Highness Princess Maha Chakri Sirindhorn* was designated UNESCO Goodwill Ambassador for the Empowerment of Minority Children and the Preservation of their Intangible Cultural Heritage. Her Royal Highness was nominated in recognition of her "outstanding commitment to education and to the welfare of children in remote areas."

Moreover, UNESCO recognised a number of other Thais for their contributions in several aspects, including *King Mongkut (Rama IV)*; *Kularp Saipradit*; *Professor Vitit Muntrarbhorn*; and *Ms. Ketsiri Kuaseng*. Five cultural and natural sites in Thailand were also registered as UNESCO World Heritage sites.

• International Association for the Evaluation of Educational Achievement (IEA)

Thailand has been a member of the International Association for the Evaluation of Educational Achievement since 1970. The Office of the Education Council serves as the participating centre and representative at the IEA General Assembly, while different research institutions participate in various research projects. Thailand currently participates in several studies of the IEA through the Institute for the Promotion of Teaching Science and Technology as mentioned in Chapter 12.

• Asia-Pacific Economic Cooperation (APEC)

With active participation in the work of APEC through representation in the APEC Human Resource Development Working Group and the Education Network, the Thai Government hosts 2 centres under the APEC umbrella namely the APEC Study Centre, attached to Thammasat University, and the APEC Centre for Technology Foresight, hosted by the National Science and Technology Development Agency.

• The Asian Institute of Technology (AIT)

Since its inception in 1959, the Asian Institute of Technology has received generous support from the Thai Government, both in terms of land donation and financial assistance. Between 1970 and

2005, nearly 2 billion baht was granted to cooperative programmes between the government and the Institute. Approximately 23 percent of the financial assistance, or 450 million baht, was contributed as scholarships during the period. The present cooperative programmes comprise the following components:

- **Scholarships:** His Majesty the King's Scholarships are full scholarships for master's degree programmes granted to qualified candidates from Thailand and other Asian countries. 487 scholarships were awarded through December 2007. Her Majesty the Queen's Scholarships are provided to qualified students interested in the environment and related fields. Under this programme, 108 scholarships were award through December 2007.

- General Support

A budget has been allocated for the Fiscal Year 2008 that covers operational support for the year, campus maintenance, support for Thai student fellowships, for joint research between the Institute and Thai universities as well as Thai industries, and for information technology training for government executives.

To date, there have been 14,020 graduates from 74 countries/territories, 3,670 (26 percent) of whom are Thai. Approximately 38 percent of Thais graduating from the AIT are now working in government organisations and state enterprises.

In 2007, there were 1,967 students from 46 countries/territories studying at the AIT, including 708 Thais comprising 35.92 percent of the student body.

• The Southeast Asian Ministers of Education Organisation (SEAMEO)

As one of 11 member countries, Thailand's Ministry of Education has cooperated closely with SEAMEO since its inception in 1965. The Bureau of International Cooperation acts as the liaison centre for SEAMEO activities in Thailand. Currently, Thailand hosts the Secretariat as well as 3 SEAMEO regional centres: the Regional Centre for Higher Education and Development (RIHED); the Regional Centre for Tropical Medicine and Public Health Network (TROPMED); and the Regional Centre for Archaeology



and Fine Arts (SPAFA). SEAMEO involves in several projects in Thailand; the Organisation recently adopted primary schools to help in the improvement of facilities and in upgrading teachers' competencies.

ASEAN University Network (AUN)

The AUN is comprised of 17 leading universities in ASEAN member countries. In addition, Chulalongkorn University hosts the permanent office of the AUN Secretariat, coordinating with 17 leading universities in all 10 member countries of ASEAN. The main objective of the AUN is to strengthen the existing network of cooperation among leading universities in ASEAN by promoting cooperation and solidarity among scholars and academicians, developing academic and professional human resources, and promoting information dissemination among the ASEAN academic community. The network has generated academic collaboration in identified priority areas among ASEAN institutions and individuals.

• University Mobility in Asia and the Pacific (UMAP)

At present, UMAP has 18 members. During 1995-2007 more than 800 scholarships were allocated to selected students and staff who apply through their universities for short-term placement at universities in UMAP member countries. Thailand has been actively involved in students and staff exchange programme with UMAP member countries since 1995 and was designated to host the UMAP International Secretariat between 2006 and 2011. UMAP is now implementing the strategic plan for 2007-2010. Its missions are to promote better understanding of culture, economics, and social systems among member countries and to prepare the new generations for globalisation and the knowledge society. It is expected that the collaboration among higher education institutions will help increase students and faculty mobility as well as the provision of cross-border higher education services.

11.3 International Cooperation and Exchange Programmes

• Cooperation with UNICEF: Child-Friendly Schools Project

The Office of the Basic Education Commission, in collaboration with a number of organisations has, since 1999, implemented the Child-Friendly Schools Project.

This UNICEF-supported project aims to promote a quality learning environment by encouraging student participation in various school activities to ensure hands-on learning experiences. Around 70 percent of the project schools in Thailand located in rural areas in the North and Northeastern regions where there are a large number of disadvantaged children.

The project schools in Thailand are quite successful, with continuous teacher training, development of personnel and materials, financial support, exchange of information as well as with study visits in Thailand and in other countries. Consequently, these schools are being used as learning sources and training venues for personnel working in the project in other countries in Asia.

• Bilateral Collaboration in Basic Education

To improve the quality of teaching and learning, the Office of the Basic Education Commission implemented several projects. These include projects such as Professional Development of Teacher and Educational Personnel; Small School Efficiency Improvement; and Development of Teaching/Learning and Curriculum: Career Promotion for Graduates from Compulsory Education (Transition from Schools to Work) under the Memorandum of Understanding between Thailand's Ministry of Education and Australian Department of Education, Science and Training launched in Fiscal year 2007.

• Student Exchange Programmmes in Basic Education

To encourage understanding of other cultures through first-hand experience, the Ministry of Education promotes student exchange programmes in cooperation with many foreign governments and international agencies. For example, 25 students and 5 teachers were exchanged between the Kingdom of Thailand and the United States of America, on a cost-sharing basis, in Thailand-Wisconsin International Sunrise Project in 2007. Due to the benefits gained by students and teachers from both sides, the project will continue in 2008

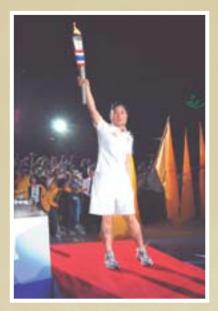
• International and Bilateral Cooperation in Higher Education

To enhance the capacity of Thai higher education and to develop Thai human resources, the Office of the Higher Education Commission has been proactive in cooperating both multilaterally and bilaterally with several partners including Australian Study Centre, European Study Centre, APEC Study Centres, countries of Greater Mekong Subregion, UNCTAD, the Council for Higher Education and the Planning and Budgeting Committee of the State of Israel and etc.

• The 24th Universiade Bangkok 2007: The World Became One

Apart from academic cooperation, Thai higher education institutions hosted the 24th Universiade Bangkok 2007 during August 8-18, 2007, in cooperation with the 24th Universiade Bangkok Organising Committee (UBOC), International University Sports Federation (FISU) as a part of the Celebrations on the Auspicious Occasion of His Majesty the King's 80th Birthday Anniversary. With 6,093 athletes and 2,914 officials from 152 countries, the 24th Universiade Bangkok 2007 is considered the biggest international Games ever organised in Thailand. The Universiade Bangkok also set up higher competition standards with 26 record-breaking events and the presence of a number of World and Olympic Champions. The athletes from People's Republic of China were the cream of the crops with 32 gold medalists while Russia and Ukraine were tied up with 28 gold medalists. Thai team came in as 6th, with 13 gold medalists.

The participation of all the athletes and officials signified the spirit of our common concern and partnership for future peace as well as the potential and spirit of our younger generations equipping them to encounter with all global challenges through the world



Her Royal Highness Princess Sirivannavari Nariratana carried the torch in the 24th Universiade Bangkok 2007.

of sports. The 24th Univerisade Bangkok 2007 promoted non-discrimination against ethnicity, religion, economic status, and political belief; it was also considered as a clean game after 526 doping samples were found negative for banned substances.

In this event, 9,716 student volunteers who were recruited from Thai universities were enthusiastic, energetic, and willing to work hard. While doing their assigned jobs, they also had opportunities to introduce foreign participants to good and famous Thai traditions and



experience new traditions from those participants at the same time. All participants learned how to live in harmony with others and it was the first step to peaceful coexistence.

It is expected that the uplifting spirit from the friendships and sportsmanship of athletes, officials and volunteers will be carried

on to the next Summer Universiade to be organised in Belgrade in 2009.

• Student and Staff Exchange Programmmes in Higher Education

The Office of the Higher Education Commission provides financial support for the exchange of students and staff with foreign countries in Asia and other parts of the world. Participants in the exchange programmes are encouraged to take courses in institutions abroad and to transfer credits back to Thailand; foreign partners are also urged to do the same, *i.e.* accept credits transferred from higher education institutions in Thailand. The most recent Mutual Recognition of Academic Degrees was signed in 2007 by the Ministers of Education of Thailand and China.

The objectives of the exchange programmes are to expose Thai students and staff to the outside world in order to improve their competency and world view, and ultimately, to improve the quality of Thai higher education to ensure that qualifications earned from Thai institutions are recognised and accepted at an international level.

In cooperation with partners in Australia and Canada, the 'Thai University Administrators Shadowing Programme' enables Thai university administrators to be mentored and gain direct experience in managing higher education institutions.

• Exchanges with Countries in the Greater Mekong Sub-region

Exchanges of students and staff between Thailand and neighbouring countries in the Greater Mekong Sub-region (GMS) were initiated in 1999 to encourage mobility and the facilitation of credit transfer among higher education institutions. As for Thailand, the Office of the Higher Education Commission provides grants to students and staff in Cambodia, Laos, Myanmar, Vietnam and Yunan Province of China to participate in the programmes which last between 1 and 4 months.

Apart from the above-mentioned bilateral and multilateral cooperation, other partners have supported Thai education for

decades. These include the Peace Corps Thailand, whose volunteers have made the contribution to educational and economic reform initiatives of Thailand since 1962, and the Fulbright Program that offered exchange of knowledge and professional talents to Thailand since 1950. Besides, there are several other major student exchange programmes include Rotary, AFS, and Thailand Fellowships, Scholarships and Junior Scholarships.

11.4 International Cooperation for Educational Reform

To enhance international cooperation for educational reform, Thailand concluded mutual agreements on development of educational policy. Examples of such cooperation can be seen as follow:

11.4.1 The Thailand-U.S. Education Policy Roundtable

Cited as a policy forum for scholars in both countries to pursue better understanding and cooperation in improving educational quality through comparative research and training, the Roundtable was created in October 1998, following a private royal visit to the University of Pennsylvania of Her Royal Highness Princess Maha Chakri Sirindhorn.

This bilateral partnership has provided an excellent opportunity for educational policymakers, academics, and researchers to exchange information on policy research on science education as well as current developments, perspectives, strategies, and lessons learnt from higher education in both countries.

The Fourth Thailand-U.S. Education Policy Roundtable will be organised between 9 and 11 October 2008 in the U.S. The Thai delegation will be led by Her Royal Highness Princess Maha Chakri Sirindhorn, the Honorary Chairperson of the Steering Committee for the Thailand-U.S. Education Policy Roundtable.

At present, Professor Dr. Krissanapong Kirtikara, the Former Secretary of the Office of the Higher Education Commission, chairs a Thai Steering Committee while Professor Dr. Susan Fuhrman, the Dean of Graduate School of Education, University of Pennsylvania, heads the U.S. counterparts.



Her Royal Highness Princess Maha Chakri Sirindhorn (The Honorary Chairperson of the Steering Committee for the Thailand-U.S. Education Policy Roundtable)



Dr. Siriporn Boonyananta, Secretary of the Thai Steering Committee for the Thailand-U.S. Education Policy Roundtable presenting Her Royal Highness Princess Maha Chakri Sirindhorn the research studies to be presented in the First Conference on the Eight-Nation Education Research.

The Fourth Roundtable discussions will explore 3 new research areas: (1) Liberal Arts Education/Colleges; (2) Workintegrated learning for the 21st century, in Mathematics and Science; and (3) Mathematics and Science teacher preparation for the 21st century.



Her Royal Highness Princess Maha Chakri Sirindhorn has graciously consented to take a photo with the researchers in the Eight-Nation Education Research.

11.4.2 Eight-Nation Education Research Project

The First Conference on the Eight-Nation Education Research was organised between 1 and 3 December 2007 in Chiang Mai, Thailand to discuss the progress of the work. The research studies focus on transition from high school to higher education and teacher preparation and qualifications, reform of higher education and science and mathematics education. More information regarding the Conference can be accessed through http://www.worldedreform.com/intercon/u-501214.htm.



11.4.3 Seminars and Exhibitions on Thai Education in Foreign Countries

Since 1999, the Office of the Higher Education Commission has organised annual seminars and exhibitions on Thai Education in foreign countries. The seminars, exhibitions, study visits and consultative meetings bring a better understanding of Thai higher education and culture of both sides and lead to the creation of linkages and collaboration projects with Thai universities.

Through international cooperation and exchange in education and for educational reform efforts, it is expected that all concerned will be dedicated to the important issues of equity and quality in education, reform of learning and lifelong learning so as to improve overall achievements in education.







Chapter 12

Current Efforts

This Chapter attempts to highlight some current efforts of concerned agencies in 5 aspects, including promotion of mathematics, science and language education; integration of sufficiency economy philosophy into education; inclusion of Thai wisdom into education; promotion of morality-based knowledge; education for peace and harmony; and inclusion of global efforts at school level.

12.1 Promotion of Science and Technology, Mathematics and Language Education

Science and technology development has long been recognised by the Royal Thai Government. The Institute for the Promotion of Teaching Science and Technology (IPST) was established since 1972 to promote excellence and raise the teaching and learning of science, mathematics and technology in Thailand to international standards, with the financial and technical support from the United Nations Development Programme.











Following implementation of the 1992 National Education Act, the government undertook various measures to promote the teaching and learning of science and mathematics, and supporting individuals with special abilities in these fields. Young people are encouraged to participate in competitions locally, nationally and internationally. Qualified students are selected to represent the country in the International Academic Olympiads. Scholarships at the secondary and higher education levels, both overseas and in Thailand, are granted to students and teachers with special talents in the fields of mathematics, chemical and biological science, physics, and computing.

Science and technology was also focused as one of the strategies in the 9th National Economic and Social Development Plan (2002-2006). The recognition of the significance of *science* and technology development was once more reiterated in the National Information Technology Policy (IT2010) in four aspects: 1) Development of science and technology personnel; 2) Promotion of science and technology research and development; 3) Promotion of the use of appropriate and inexpensive information technology for good governance; and 4) Development of the science and technology laws and protect intellectual property rights.

The Institute for the Promotion of Teaching Science and Technology (IPST) promotes the Teaching of Science and Technology in several aspects. Thailand, through the Institute, is participating in current studies of the International Association for the Evaluation of Educational Achievement. These studies include the 'Second Information on Technology in Education Study' (SITES) 2006, the 'Trends in Mathematics and Science Study' (TIMSS) 2007, and the 'Teacher Education and Development Study-Mathematics' (TEDS-M 2009).

The SITES-2006 examines the impact on student knowledge and skills of using ICT in teaching *science and mathematics*, as well as the factors affecting the use of ICT in teaching-learning. The TIMSS-2007 aims to evaluate student achievement in *science and mathematics*. For both projects, data will be collected from students at Grade 8. As for the TEDS-M 2009, it focuses on exploring whether and how much teacher preparation, policies, programmes and practices across the world contribute to the capability to teach *mathematics and science* in elementary and lower secondary schools

Concerned agencies at various levels also take an active role in promoting science and technology as follows:

- At the national level, the National Information Technology Policy (IT2010) aims to promote science and technology in terms of personnel development, research and development and law formulation.
- At basic education level, the Office of the Basic Education Commission launched a project to promote the efficiency of teaching-learning science. From all educational service areas, 1,780 pilot schools were chosen. In the project, teachers teaching grade 1 to 12 were selected from these schools, along with some educational supervisors from educational service areas, to be trained. The training activities cover several aspects, including science curriculum administration; measurement and assessment; scientific process content and teaching methods such as inquiry method; development of tools to assess the quality of classroom learning; development of scientific learning source in educational service areas; conduct of seminars between pilot schools to upgrade quality of the teachinglearning; development and dissemination of the body of knowledge to teachers in other network schools; assessment of teaching-learning quality in pilot schools; experiment with the inquiry teaching method, synthesis and development of scientific teaching-learning models in educational service areas.
- At higher education level, scholarships for master's and doctorate degrees as well as academic training activities in science and technology areas are being provided to qualified teachers with special abilities in these fields.

Apart from mathematics, science and technology, the Ministry of Education also focuses on the improvement of teaching and learning of languages, particularly Thai, English and Chinese languages, with an emphasis on communication skills in real life situations, careers, and further education.

A number of campaigns have been organised to encourage *the proper use of the Thai language and good reading habits*. Radio and television programmes have been produced and contests were organised in essay-writing, public speaking, reading, and creative writing in Thai. The Annual Book Fair, held in cooperation with publishing houses since 1972, has attracted increased public attention and interest. The teaching and learning of Thai language is also promoted in several neighbouring countries to strengthen political and social relationships in the region.

Several steps were undertaken by the Ministry of Education to promote *the teaching and learning of English for communicative purposes*.

- At Ministerial Level: In 2007, the English Language Development Centre was established by the Ministry of Education, with the following objectives: 1) To conduct need analyses and to evaluate the supply and demand of the use of English; 2) To effectively plan training programmes corresponding to the target groups' needs; 3) To promote, support and coordinate the role of government and private tertiary institutions, including the foreign organisations for an efficient rendering of training services through the network; and 4) To serve as a consultation centre for both government and private sectors as well as the general public concerning the needs for the use of English in career enhancement and job performance. In addition, a long-term strategic plan (2005-2015) to increase the ability of Thais to communicate in English, as well as a plan to review the entire system of English teaching and learning were formulated.
- At School Level: A number of regular schools in Thailand also offered English Programme (EP) due to the recognition of the importance of using English for communication through the use of English as a medium of instruction.





The "Educational Innovation Development Committee" under the supervision of the Office of the Basic Education Commission will assess schools wishing to be English Programme schools in terms of curricular substance, the teaching-learning process and knowledge/ qualifications of teachers. English Programme schools also take into account the advantage to the teaching-learning process in terms of the ability of students to communicate in English and to understand the knowledge and the substance of each subject.

In the Academic Year 2007, there are 133 schools offering English programme in selected subjects (mostly, English, science and mathematics) to 35,811 students. These schools employ 3785 teachers, 1,297 out of which are foreign teachers while the rest are Thai.

At the same time, the Ministry of Education also supports the improvement of Chinese language proficiency and instruction for communicative purposes.

A five-year (2006-2010) Strategy on the Promotion of Teaching and Learning of Chinese Language to Increase the Country's Competitiveness was drafted. Moreover, the Ministry is working in close cooperation with the People's Republic of China. In this effort, a task force has been created and an initial framework developed; assistance is being provided in curriculum development, textbooks and teaching-learning materials, teacher training, and evaluation tools.

12.2 Integration of Sufficiency Economy Philosophy into Education

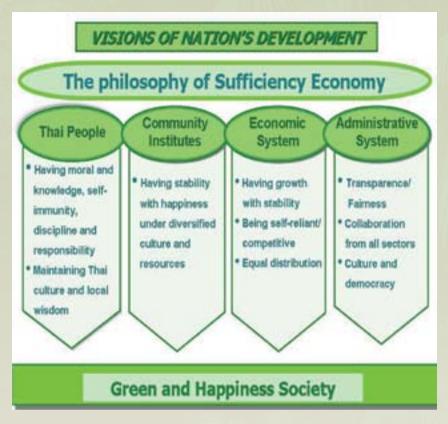
With emphasis on the Buddhist principle of the "middle path" and based upon accumulative experiences in rural development of His Majesty King Bhumibol Adulyadej, the Sufficiency Economy Philosophy cautions against negligence by including *moderation*, reasonableness and self-immunity as guiding principles in the planning, implementing and decision-making process. (Figure 12.1)

Figure 12.1 Guiding Principles of Sufficiency Economy Philosophy



The Sufficiency Economy Philosophy focuses on sufficient basic needs as well as sustainable ecological system and lifestyles; it was developed as a holistic approach to life and conduct, applicable at various levels, ranged from an individual, a family, a company, a community and the whole nation. (Figure 12.2)

Figure 12.2 Sufficiency Economy Philosophy as the National Agenda



Source: Office of the National Economic and Social Development Board

Accordingly, the "Strategies to Drive the Sufficiency Economy Philosophy to Educational Institutions (2007-2011)" were formulated by the Ministry of Education, with the emphasis on 2 preconditions which are wisdom and morality.

In this regard, 5 main strategies will be implemented, comprising 1) development of educational provision in accord with the philosophy; 2) personnel development; 3) multiplication and network development; 4) public relations; and 5) development of monitoring and assessment process.

These strategies are to be implemented in 3 phases and require a total budget of 500 million baht. In the first phase (2007), a number of basic education institutions implemented the mentioned strategies. However, it was found that teachers need additional training programmes so as to convey the concept to their students accurately. To lessen the problem, the Office of the Basic Education Commission was suggested to provide additional training programmes for teachers and educational personnel. It is expected that 800 model schools will be developed in the second phase (2008-2009). All schools are expected to implement the strategies in the third phase (2010-2011).

Since 2007, all concerned agencies under the Ministry of Education support educational institutions to integrate the philosophy into their administration and management; curriculum and teaching-learning process; learning centres and students' activities.

Certain schools across the country that were selected as pilot projects for more intensive application of Sufficiency principles, including: 1) Chamathewi School, Lamphun, has an integrated learning project on Sufficiency living; 2) Kanchanapiset School, Phetchabun, has an experiment in school banking; 3) Ban Kutchiang Mi School, Yasothon, is practising bio-agriculture to supply school meals; 4) Ban Laokokhongsawang School, Khon Kaen, has a cooperative project; 5) Makut Raachakuman School, Rayong, has an environmental management project in a local river basin; 6) Chulabhorn Ratchawittayalai, Phetchaburi, is developing a botanical garden to raise community income; 7) Ratwinit School, Bangkok, has a project on conserving Thai culture and way of life; 8) Thai Rath Wittaya, Ranong, is studying the environment for sustainable agriculture; 9) Kalayani Si Thammarat School, Nakhon Si Thammarat, is developing an integrated curriculum based on Sufficiency principles; 10) Wat Kho Suwanram School, Bangkok, has a model integrated farm with rice, herbs and poultry; 11) Borom Rath Rangsan School, Bang Bon, has a model farm, vetiver grass planting and fisheries project; 12) Khlong Phittayalongkhon School, Bangkhunthian, is breeding shellfish; 13) Vajiravudh College established a learning centre in the province, converted used vegetable oil into bio-diesel for school use and planted a herbal garden within school compound; 14) Ratchavinit Secondary School implemented the philosophy in school sports day activities and supported the idea that each school should take part based upon its diverse social-geography; and 15) Ratchawittayalai, Petchburi province cited the school project in which a botanical garden acts as a learning source from which teachers and students are able to learn real life experiences of both accomplishment and failure.

The effectiveness and efficiency of implementation of "Sufficiency Economy Philosophy" in educational institutions will be monitored. In this regard, the Ministry of Education will use 4 indicators which are administration and management of educational institutions; curriculum and teaching-leaning process; development activities for learners; and development of personnel.





Several publications have also been published to explain the Sufficiency Economy Philosophy in layman's terms so that children can easily understand and apply the philosophy with their everyday life.

As concluded in "Thailand Human Development Report 2007: Sufficiency Economy and Human Development", the Sufficiency Economy Philosophy adheres to five following maxims: (1) know what you are doing; (2) be honest and persevere; (3) take a middle-path, avoiding extremes; (4) be sensible and insightful in taking decisions; and (5) build protection against shocks. The philosophy is regarded as a 'survival strategy' for individuals, communities, corporations and governments in a world of economic

Figure 12.3 Integration of Sufficiency Economy Philosophy into Basic Education Curriculum

The **lower-primary level** trains children to adopt a Sufficiency Economy approach in their daily lives in the home.

- G1: self-reliance in daily life; sharing with family and friends; saving money;
- G2: economical spending; analysing family expenses; reducing expenses
- G3: being helpful and generous; sharing money and goods

The **upper-primary level** moves on to applying the principles at school.

- G4: surveying household accounts; cooperative projects
- G5: applying Sufficiency principles at the school
- G6: analysing the application of Sufficiency at school

The **lower-secondary level** progresses to applying Sufficiency principles in the community.

- G7: Analysing the community's history, status, social capital, and current problems; applying Sufficiency methods to solve those problems
- G8: Applying cooperative principles in daily life; participating in a cooperative store; identifying a community cooperative project
- G9: Applying Sufficiency principles in community development

Finally at the **upper-secondary level**, the focus switches to the national level.

- G10: Study of the concepts in the Royal Projects and King's speeches
- G11: Understanding Sufficiency in economic and social development
- G12: Application of Sufficiency principles in various sectors

Source: Thailand Human Development Report 2007: Sufficiency Economy and Human Development, UNDP"

uncertainty and environmental threats. The Report also clearly stated the transformation of the Philosophy into practical policies and concrete actions that leads to sustainable growth, environmental protection and a better quality of life for all as well as the integration of Sufficiency Economy Philosophy into basic education curriculum. (Figure 12.3)

The Sufficiency Economy Philosophy is also integrated into the curricula at higher education level. Related courses are offered at various levels, from certificate to undergraduate and graduate, by several higher education institutions as follows:

- 1) The Training Centre of the National Institute of Development Administration plays a very important role in promoting the Sufficiency Economy Philosophy by offering several training programmes and courses;
- 2) Since 2002, Suranaree Technology Institute offered a coursework on "Sufficiency Economy" in a Master programme in Management and Rural Development Planning;
- 3) In 2004, Mae Jo University launched a Master programme in Geosocial-Based Sustainable Development, based upon the Sufficiency Economy Philosophy;
- 4) Huachiew Chalermprakiet University offered a course called "Life and Sufficiency Economy" which is compulsory for all first-year students studying at the bachelor degree level since 2006. The University includes into its teaching-learning activities related lectures, group discussions, seminars and field trips to the Royal Projects and case studies in sufficient communities or villages.

Students are also encouraged to apply the philosophy not only to themselves but also to broader communities, including agricultural, business and industrial sectors; and to the national economy and the protection of the natural environment. They are also required to publicise and cultivate the philosophy among students on the campus through exhibitions, brochures, newsletters, plays and puppet shows.

In addition, other similar courses are offered by Kasetsart University, the Faculty of Management Science of Ubon

Rajathanee University and the College of Management of Mahidol University.

It is expected that the application of the philosophy will lead to appropriate conduct of learners, administrators, teachers and educational personnel as well as improve the efficiency, effectiveness and quality of educational institutions at all levels.

It is also anticipated that improvements made in the education sector will result in a more resilient and sustainable development of other sectors and lead to greater capacity of the nation to cope with the challenges arising from globalisation and other changes.

12.3 Promotion of Morality-Based Knowledge

Section 6 of the National Education Act specifies that education will aim at the full development of Thai people in all aspects: physical and mental health; intellect; knowledge; morality; integrity; and desirable way of life so as to be able to live in harmony with other people.

Accordingly, the Implementation Plan of the Ministry of Education for Fiscal Years 2007-2008 focuses on provision of education and lifelong learning of quality. Among 5 major policies of the Ministry, the first and foremost priority is the acceleration of educational reform by attaching to morality-based knowledge as well as creating awareness and recognition of the Sufficiency Economy Philosophy, harmony, peaceful resolution and democratic path.

Human development through morality-based learning process takes into account the cooperation from institutions, families, communities, religious institutions and educational institutions. To implement such learning process, it is necessary to cooperate with all sectors in Thai society to inculcate, into youth and people from all walks of life, the value, ethics and culture in line with the Sufficiency Economy Philosophy, democratic way of life and good governance.



In the beginning, the focus group covered 15 million students, teachers, faculty staff and educational personnel in educational institutions. At a later stage, the Ministry will implement this policy in the society at large, covering Thai people in non-formal and informal education.

The main goal is to promote morality in Thai education system by networking and strengthening of families, religious institutions and educational institutions and having them join forces in planning and implementation of morality-based knowledge. In this regard, 5 main bodies of the Ministry of Education worked closely in implementing this policy and formulating 14 measures under 4 strategies as follows:

The *first strategy* is to inculcate awareness and mindset and to resolve the problematic behaviour through 3 measures, including:

1) To offer various models of learners' development activities;

2) To organise activities for teachers, faculty and educational

2) To organise activities for teachers, faculty and educational personnel to create their mindset and inspiration; and 3) To inculcate 8 desirable ethics (diligence, honesty, economy, discipline, politeness, hygiene, harmony and generosity) into the way of life of all personnel in educational institutions and agencies.



The *second strategy* is to improve the learning process and promote the best practices through 4 following measures: 1) To develop curriculum, materials and manuals as well as learning process and measurement/assessment; 2) To search for, develop and transfer the best practices of teachers, faculty staff and educational personnel; 3) To promote and support research and development and innovation; and 4) To create maps to show locations of outstanding persons, to give them recognition and honour and to publicise their good deeds.

The *third strategy* is to create self-immunity by networking families, religious institutions, educational institutions, communities and the media through 5 measures, including: 1) To search for leading families, religious institutions, educational institutions and communities; 2) To create and expand the morality networking system; 3) To develop preventive system; 4) To publicise the morality-based knowledge; and 5) To promote all kinds of media in so doing.

The *fourth strategy* is to supervise, monitor and assess the implementation through 2 following measures: 1) To develop indicators related to moral behaviour of students and teachers; and 2) To create mechanisms in supervising, monitoring and assessment that can function periodically and continuously.

In accordance with the above-mentioned strategies and measures, the Office of the Education Council implemented 10 projects, including:

1) Organising Training sessions to promote morality in educational system for 26,613 teachers and educational personnel in educational institutions;



- 2) Creating maps to show locations of 217 teachers of Thai wisdom teachers and other outstanding persons as well as giving them recognition. This project was conducted in 178 educational service areas by 178 teams comprising educational supervisors, teachers, students, monks and leaders in other religions;
- 3) Organising "Conflict Resolution Education" workshops to promote peaceful culture, or non-violent conflict resolution, in schools and develop potential of educational personnel in 80 educational institutions as well as workshops to formulate 3 curriculum and manuals related to non-violent conflict resolution in schools, conflict mediators and experts in non-violent conflict resolution in schools for 39 teachers and 12 educational personnel in 20 educational institutions;
- 4) Organising seminars related to the integration of Sufficiency Economy Principle into educational system (teaching-learning process and curriculum) for 1,300 participants;
- 5) Organising training sessions to publicise Buddhism principles to 2,459 students in 3 schools;
- 6) Conducting 5 case studies in 25 schools to research and develop the inculcation of morality in families, educational institutions, religious institutions and communities by using school-based management;

- 7) Selecting 76 model community-learning centres;
- 8) Organising workshops, in cooperation with the Office of the Permanent Secretary, Ministry of Education, to create moralitybased knowledge network in schools in 11 selected provinces;
- 9) Collecting data from model schools with interesting activities to promote morality-based knowledge;
- 10) Creating data base of networks (1 model school in each of 178 educational service areas).

12.4 Inclusion of Thai Wisdom into Education

Thai wisdom is integrated in the way of life of Thais in several aspects; it is the national heritage which helps solve problems and improves the quality of life of Thai people in line with their environment.

The inclusion of Thai wisdom into educational provision was supported by the Office of the Education Council since 1999. A policy was issued with the following objectives: 1) To include the content and learning process of Thai wisdom in educational system and in provision of formal, non-formal and informal education; 2) To give recognition of and honour for Teachers of Thai Wisdom, to support them in being the living examples or role models for others, guiding the thinking/learning process and way of life as well as transferring the local wisdom through education of all types and at all levels; 3) To promote research studies related to Teachers of Thai Wisdom so as to improve educational provision in line with the needs of local communities; and 4) To collect the data base regarding the content, organisations and networks of local wisdom at local and international levels.

Included in this policy are 4 strategies: 1) Promoting the inclusion of Thai wisdom into educational provision; 2) Supporting, exploring and conducting research studies to integrate local wisdom into educational provision; 3) Giving recognition to Teachers of Thai Wisdom in educational provision; and 4) Supporting the administration and management to include Thai wisdom in educational provision.



The main functions of the Office of the Education Council in integrating Thai wisdom into the learning process of learners in formal, non-formal and informal education are:

1. To give recognition of and honour for Teachers of Thai Wisdom: In order to promote local knowledge and national arts and culture, a number of local knowledge experts have been honoured as "Teachers of Thai Wisdom". The teachers so honoured are experts in 9 fields of knowledge including 1) agriculture; 2) industry and handicrafts; 3) Thai traditional medicine; 4) natural resources and environment management; 5) community trusts and enterprises; 6) fine arts; 7) language and literature; 8) philosophy, religion and traditions; and 9) nutrition.

From 2002 to 2006, 282 local experts from all the regions across the country have been recognised as Teachers of Thai Wisdom. These individuals are provided with financial support to carry out the three main tasks: (1) mobilising local wisdom in school settings; (2) integrating local knowledge into the school curriculum; and (3) establishing local wisdom learning centres and networks. In short, the minimum requirements for Teachers of Thai Wisdom are to transfer the body of knowledge to learners in educational institutions and/or learning centres.

2. To establish local wisdom learning centres: Local wisdom learning centres are a new approach in the teaching-learning process.

The centres are accessible to all, and have the potential to really become alternative schools for lifelong learning in the community. It is expected that these learning centres will enable learners to learn on their own according to their interests, potential, readiness and opportunities; and learners will be able to transfer knowledge acquired into the formal education system, apply the knowledge and skills of local wisdom in pursuing careers, and improve their quality of life.



So far, the Office of the Education Council supported Teachers of Thai Wisdom in establishing 82 Thai wisdom learning centres in 47 provinces. These learning centres play an important role in disseminating the body of knowledge to 117,547 persons and 5,848 organisations; producing various products; and establishing 8 Community Trust Funds.

3. To promote the integration of Thai wisdom into educational provision: The Office of the Education Council synthesises the body of knowledge, teaching models and learning process of Thai wisdom teachers. The results of the synthesis were publicised as case studies and models to educational institutions wishing to integrate Thai wisdom into educational provision as well as to individuals wishing to integrate Thai wisdom into their daily life.

In addition, the **2001 Curriculum for Basic Education** formulated by the Ministry of Education also promotes the integration of Thai wisdom into educational provision. Educational institutions are encouraged to include into their curriculum a learning unit based on Thai wisdom in line with the local needs.



One of the most prominent Teachers of Thai Wisdom is Mr. Prayong Ronarong who was appointed as a Teacher of Thai Wisdom in the field of community trusts and enterprises since 2001. His dedicated participation and strong leadership in his community called Ban Mai Reing, together with the determination and cooperation from community members, the local knowledge and resources led to tremendous success. Apart from establishing the rubber processing plant to negotiate the selling price of the rubber plants; the community also changed the pattern of farming from monoculture (the cultivation of a single crop in a wide area) to product diversification. Thus, instead of depending entirely on rubber plants; the community cushions their risks by having a variety of farm products for their household consumption and for sale.

Keeping in mind the new theory of agriculture, which calls for self-reliance from a more diversified and more balanced farming in line with the Sufficiency Economy Philosophy, he set up Ban Mai Reing Community Learning and Development Centre, using the learning by doing approach, to share his expertise. At the same time, the Community constantly learns from the best practices of other farmers and consults with experts in the field.



With continuous involvement with other networks pursuing similar goals, Mr. Prayong was named the Philippines' Ramon Magsaysay Award winner for Community Development in 2004 and was appointed as a Committee member of the National Committee on Local

Community Leader in 2005. Apart from Mr. Prayong, 11 other Teachers of Thai Wisdom were appointed among 50 members of the Committee appointed by the Royal Thai Government.

12.5 Education for Peace and Harmony

Constituting less than 5 percent of the Thai population nationwide, the majority of Thai Muslims live in the provinces of Pattani, Yala, and Narathiwat where the way of life, language and culture are unique.

Unfortunately, political unrest in these provinces has had an undesirable impact on peace and national unity during the past several years. The Royal Thai Government deems that it is necessary to reinstate Southern Border Provinces Administrative Center and to highlight peace and national unity as one of the national priorities in the 10th National Economic and Social Development Plan (2007-2011).

Disturbances in these provinces also seriously affect educational provision. Schools in some communities have had to close temporarily, teacher shortages have arisen as vacant positions can not be filled with qualified personnel, and learning has been affected.

However, education is the long-term solution for conflicts and the key factor in assisting those who are economically and socially disadvantaged and in integrating the citizens in these provinces into Thai society and the global community.

Education in these provinces is provided by religious as well as educational institutions. The challenge is to find means of enabling the people of the South to continue to impart their culture, language, and religious traditions to the younger generation while at the same time providing students with necessary skills so as to become productive and educated adults with equal opportunity to prosper in the competitive job market and to advance economically and socially in the greater Thai society.

Another imperative is to ensure that educational policies and programmes support and promote the cultural and religious diversity of the region. The Ministry of Education has worked to overcome the problems through a number of projects and policy approaches. In the 3 border provinces, formal basic education is provided in 925 public educational institutions under the supervision of the Office of the Basic Education Commission, with 270,972 students and 12,758 teachers. (Table 12.1)

Table 12.1 Number of Schools, Students and Teachers in Formal Education Provided in the 3 Border Provinces

Provinces	Number of Schools	Number of Students	Number of Teachers
Narathiwat	360	106,359	5,012
Pattani	339	94,480	4,549
Yala	226	70,133	3,197
Total	925	270,972	12,758

Source: Office of the Basic Education Commission, Ministry of Education

Around 68 percent of students in formal basic education, or 183,606 students, provided in the border provinces are studying at primary level. (Table 12.2)

Table 12.2 Number of Students in Formal Education Provided in the 3 Border Provinces, Classified by Levels of Education

Level of Education	Narathiwat	Pattani	Yala	Total
Pre-primary	20,710	18,052	13,758	52,520
Primary	71,359	64,948	47,299	183,606
Lower-Secondary	9,637	7,723	6,346	23,706
Upper- Secondary	4,653	3,757	2,730	11,140
Total	106,359	94,480	70,133	270,972

Source: Office of the Basic Education Commission, Ministry of Education

In summary, Islamic education in Thailand is offered by various entities. Islamic education at basic education level is provided by 1) Public educational institutions providing both academic and vocational skills; 2) Private schools teaching Islam and currently offering academic and vocational subjects; 3) Pondok or Ponoh Institutes, which are private Islamic boarding schools or private Islamic schools, teaching Islam and other academic subjects; 4) Tadika or Centre for religious and educational training, run by local mosques; and 5) Rawdah or pre-school development centres, operated by local mosques.

At higher education level, the government already established and upgraded higher education institutions (Narathiwat Rajanakarin University, Community Colleges in Pattani and Yala, Pattani Fishery College and gave university status to the Pattani Campus of Prince of Songkhla University).

Following the 10th National Economic and Social Development Plan (2007-2011), it is expected that additional activities will be taken to increase social equity in the 3 border provinces to reinstate

peace and national unity in the area. Accordingly, the framework of the 2nd 15-Year Plan on Higher Education of Thailand was formulated. Covering 2008-2022, this 15-Year Plan focuses on peaceful management of violence and conflicts as well as programs for Southern Thailand, leading to better understanding, confidence, and access to education and employment. This Plan calls for 4-prong approach, namely, development of students and youth, development of university staff, capacity strengthening of institutions and building bridges with ASEAN. In this regard, promotion of inward and outward mobility for students and youth as well as escalation of and access to quality education at all levels would ensure good and meaningful employment within and outside Southern Thailand, and opportunities in ASEAN and the world Muslim community.

In the Southernmost province, *non-formal education services*, which provide general and vocational non-formal education, are provided by several agencies including private Islamic schools or Pondok schools, Office of the Non-formal Education Commission and Office of the Vocational Education Commission.

To assist 82 Pondok schools in Yala, Pattani, Narathiwat and Songkhla, the Distant Learning Foundation under the Patronage of His Majesty the King of Thailand gives them access to lessons in subjects such as English, science, physics and chemistry via satellite. The quality and standard of broadcast programmes extended to these schools are similar to those rendered to Ratchaprachanukroh schools which are also under His Majesty the King's Patronage. Besides, 3,000 students in the 3 border provinces with computer skills will be hired during the March-May school break to design teaching-aid software and produce e-books.

The Ministry of Education also supports the teaching of Islam and general education subjects by registering Pondok schools, providing teaching manuals and learning guides, and formulating a basic education curriculum that integrates Islam and general education. At present, 47 Pondok schools are teaching both Islam and general education subjects, and 101 Pondok schools, or private Islamic boarding schools, teach Islam only.

Support is also given to Muslim teachers in the three border provinces wishing to upgrade their qualifications through transfer of learning outcome and validation of experience. In addition, the Office of the Private Education Commission also offers interest-free loans for construction of new school buildings or the renovation of old ones through a Revolving Fund for the Development of Private Educational Institutions providing compulsory and basic education

Because of the disturbances in these provinces, the Ministry of Education has also worked to improve the welfare and security of teachers by providing additional monthly compensation, life insurance and security measures, as well as establishing an assistance fund for teachers and educational personnel affected by the unrest and providing scholarships for their children





The Ministry has sought to expand educational access and quality in these provinces by: increasing the number of scholarships and special education centres; hiring more teachers; repairing a large number of schools and learning centres; and providing vocational education to enhance career development in the fields of rubber and polymer technology.

In addition, Thai Muslim Youths receive financial support and donations in accordance with Islamic Principles from Islamic charitable organisations, as well as government scholarships from Muslim countries. There are approximate 3,000 Thai Muslims studying in other Islamic countries.

Apart from the Ministry of Education, other Islamic entities, such as the Islamic Development Bank or IDB and the Asia Foundation, have been working with the Thai-Muslim community.

The Islamic Development Bank sponsored higher education (Islamic colleges and studies) in the Southern Provinces while the Asia Foundation supported a pilot project being implemented by the Foundation in 10 Pondok Schools. The project aims to improve the curriculum and pedagogy, especially in English, mathematics, science, and civics subjects, as well as to strengthen the ability

of students to operate effectively in the broader Thai and global communities by providing support networks and teaching life-skills needed for living in a multicultural society. This project is especially designed for Muslim students who are graduating from small religious schools and moving to work or further their education in larger urban areas.



12.6 Inclusion of Global Efforts at School Level

Global warming leads to weather pattern changes and climate variability which not only decrease agricultural production and availability of natural resources but also influence the numbers, frequency and intensity of natural disasters. Additional impacts of climate change include rise in sea level, coral bleaching, drought, forest fires, and increased risk to human health.

Global warming and climate change are global concerns and reduction of Greenhouse Gases, energy conservation and management and preservation of the environment and natural resources became global efforts, especially after several severe disasters occurred around the globe.







Human activities, such as emissions from industries and vehicles using fossil fuels, increase Greenhouse Gases emitted into the atmosphere and thus cause global warming. Consequently, people should be educated to solve the problems that they cause. In this regard, there is growing recognition that educational institutions should live up to public expectations by providing related knowledge and information to students and the public, creating awareness of global concerns and including global efforts in their curricula and activities. This chapter proposes that Thai education should play a more vital role in the mentioned global concerns and efforts.

The ultimate goal set by the 10th National Economic and Social Development Plan (2007-2011) is for Thailand to be a green and happy society through sustainable development. (Figure 12.4)

Figure 12.4 Main Strategies of the 10th National Economic and Social Development Plan



To achieve this goal, the Plan focuses on the improvement of natural resources and biodiversity. It gives first priority to development of human resources and preparation for the knowledgebased society in which education plays a key role.

For the Thai public, recognition of the impacts of global warming and climate change significantly increases the need to participate in global efforts in the aftermaths of the Tsunami and the oil price crisis. Industrial and agricultural sectors as well as households in Thailand currently respond positively to global efforts, such as reduction of Greenhouse Gases, energy conservation and management and preservation of the environment and natural resources. Continuous attempts have been made to gradually replace conventional energy (fossil fuels) with alternative energy and renewable energy, especially bio-gasoline.

To instill an attitude and habit of energy conservation into Thai children from an early age, education about global efforts should be included at all school levels. If educational institutions take an active role in creating awareness of these global issues and provide related experience for their students, they can significantly contribute to sustainable development. Thai students should be encouraged to seek for knowledge and to experience how individuals, schools and communities can contribute to these global issues.

So far, related activities have been conducted in several schools, in cooperation with the local community and concerned public and private agencies, both at the national and international levels. A number of Thai students in these schools are actively involved in projects such as the "Green Learning Room"; the "Schools for Better Climate"; the "School Ecological Footprint Challenge"; and the "School Environmental Challenge Award Project in Honour of His Majesty the King".

1) The "Green Learning Room" project: The project aims to create permanent public awareness about energy conservation by educating and spreading its message among children and youth.

The Green Learning Room offers a variety of interactive learning tools to educate school children, from pre-primary to secondary schools, on the connection between energy use and







environment. Students participating in the project also learn about different types of energies used in generating electricity as well as how to use energy wisely (economically and efficiently at the same time).

Sponsored by the Electricity Generation Authority of Thailand (EGAT), in cooperation with the Ministry of Education and the Department of Education, Bangkok Metropolitan Administration, the Green Learning Room project has been expanding rapidly and handed over to hundreds of schools countrywide. The project was awarded the second prize of the Energy Globe Awards 2001 in the category of Learning for the Future at Linz, Austria.

In this project, the Electricity Generation Authority of Thailand also supported the Thai-Cambodian cooperation project under the patronage of HRH Princess Maha Chakri Sirindhorn by undertaking a Green Learning Room project for Kampong Cheuteal College in Cambodia. This green learning room was completed and handed over to Her Royal Highness who graciously inaugurated its opening in Cambodia on May 24, 2002.

So far, the Electricity Generation Authority of Thailand has completely developed and installed the Green Learning Room for 404 schools around the country.

2) The School Environmental Challenge Awards Project in Honour of His Majesty the King: This project was initiated on the occasion of His Majesty the King's Sixth Birthday Cycle in 1999 to develop school-centred and action-oriented environmental awareness among future generations of Thai citizens.

So far, 3,629 schools have submitted project proposals and 600 schools have received financial support to implement their environmental development projects. The project is currently in the fourth phase; the King's cup award was given to the most outstanding project in each phase as presented in Figure 12.5.

Figure 12.5 School Environmental Challenge Awards
Project

Project Duration	Schools Proposed Project	Schools Receiving Financial Support for Their Projects	Schools that Received The King's Cup Award	Activities
1 st Phase (2000- 2001)	1,148	131	Baan Klong Ha Nue School, Suratthani Province	Using natural resources as filters to purify the water
2 nd Phase (2002- 2003)	1,204	234	Baan Ngew Mai School, Chiang Rai Province	Chemical-free elimination of Rice Field Crabs in paddy fields
3 rd Phase (2004- 2005)	650	175	Kudbak Pattana Suksa School, Sakol Nakorn Province	Preservation of the local plant (Kra Bak trees)
4 th Phase (2006- 2007)	627	50	Sa School, Nan province	Garbage management and Community development

Source: Social Contribution Bloc (Division), Asian Honda Motor Co., Ltd.

Along with the most outstanding school in each phase, some other schools will also be awarded. Among these are Nong Khu Municipal School in Khon Kaen Province and Amnat Charoen School in Amnat Charoen Province. Nong Khu Municipal School produced biodiesel from used oil to be used in school and the community and received an "excellent school in renewable energy" award in 1999. Amnat Charoen School conducted research on solutions to waste water problems, following the King's initiative, and received an "excellent school in waste water management" award in 2002 and in 2004.

This project is sponsored by the Honda Group of Companies in Thailand, in collaboration with the Thai Environment and Community Development Association (Magic Eye), along with the Ministry of Education, Ministry of Interior, and Ministry of Science, Technology and Environment. Concerned agencies hope to expand the programme to inculcate environmental awareness among school children in every school nationwide.



- 3) The "Schools for Better Climate" Project: Implemented by the Thailand Environment Institute (TEI), Office of Natural Resources and Environmental Policy and Planning (ONEP) and Danish International Development Agency (Danida), this project aims to enhance the roles of schools in generating a better climate and decreasing global warming. The project activities implemented in 20 schools include: 1) Developing a Teacher's Tool Kit to be used in educating and raising awareness of lower secondary school teachers regarding global warming and climate change; 2) Organising training sessions to enhance teachers' understanding and capacity in conducting educational programmes at schools: 3) Providing each school with a 30,000 baht budget to support a one-day event in which students and teachers present their solutions to global warming in various forms, such as talk shows, exhibitions, publications, posters and entertainment activities; and 4) Establishing a website (www.thai-sbc.org) as a medium in promoting, communicating and distributing information for school teachers, children and interested people on global warming and climate change. It is expected that the teachers, students and schools involved in the "Schools for Better Climate" project will be role models, leading others to follow their best practices.
- 4) The Schools Ecological Footprint Challenge: This competition welcomes all secondary schools in Thailand to take part in raising awareness about climate change. Thirteen schools will be awarded funding of not more than 50,000 baht to implement a project to reduce the ecological footprint of their school. Selected schools will have the opportunity to measure and reduce their impact on the environment and are required to provide information, such as food consumed in school, petrol used by those commuting to school every day, size of the school building and amount of waste produced. The information about the project, both in English and Thai languages, is available on its websites (www.britishcouncil.or.th/ecofootprint and http://www.efseurope.co.uk/ thaifootprints/). A programme on the project's website will convert the data into an area of land (in hectares) or so-called 'footprint' equivalent to what is required from Earth to produce those natural resources and absorb the waste.



Students will then have to think up a plan to reduce their ecological footprint, and design a poster to promote their campaign.

This project is based around an online ecological footprint calculator for schools on the project website to enhance teachers' and young people's meaningful understanding of sustainable development and their impact on the environment. The winners will be chosen on the basis of their ecological footprint result, project plan, implementation of a campaign and overall learning experience from the project. The project is implemented by the British Council, in collaboration with several agencies, including the Office of the Basic Education Commission under the Ministry of Education, the Department of Environmental Quality Promotion under the Ministry of Natural Resources and Environment, the British Embassy, the Hong Kong and Shanghai Banking Corporation and the Field Studies Council.

Apart from the above mentioned projects, several other schools and local communities are actively involved in energy conservation and management and preservation of the environment and natural resources. These include those following the Sufficiency Economy Philosophy which focuses on sufficient basic needs as well as sustainable ecological system and lifestyles. Some other agencies, such as the Green World Foundation, provide environmental education training and materials to teachers and students in disadvantaged schools and non-formal education centres throughout Thailand.

Thai people are becoming more aware of environmental issues and educational institutions in Thailand need to take a more active role in this regard. In so doing, it is expected that Thai students will help protect the earth from damaging effects on the environment and make more contributions to the reduction of global warming. They will also contribute to energy conservation and management, and preservation of the environment and natural resources.

In addition, educational institutions should also be encouraged to conduct more research and development studies on management of natural resources and the ecological system and producing more manpower in the relevant fields.

A continuous effort of all parties is needed to improve educational access and educational quality. In this regard, promotion of mathematics, science and language education contributes to the national competitiveness. Simultaneously, integration of sufficiency economy philosophy and Thai wisdom into education as well as promotion of morality-based knowledge, education for peace and harmony, and inclusion of global efforts at school level help create a more balanced development in Thai society.









Chapter 13

Educational Quality Development

The Ministry of Education has placed greater importance on improvement of educational quality and standards at all levels, the tasks of which were stipulated in the Constitution of the Kingdom of Thailand and the 1999 National Education Act.

The acceleration of educational development to catch up with the changing socio-economic situation has been the Ministry's priority due to many indicators demonstrating the deteriorating quality of education and the need to improve educational quality as follows: 1) Only 40 percent of three to five year old children received the preparation for readiness in learning before attending primary school; 2) The students' performance in basic education, as shown in several National Tests taken at grades three, six and nine including the Ordinary National Education Test (ONET) taken at grade 12, has not been satisfactory. Moreover, the evaluation from PISA (Programme for International Student Assessment) indicated that Thai students at 15 years of age performed at a much lower level than students of member countries of the Organisation for Economic Co-operation and Development (OECD), particularly in reading,

mathematics and science; 3) Almost 40 percent of teachers were overwhelmed by managerial tasks other than teaching while the remaining teachers or 60 percent lack morale for teaching and want to participate in the early retirement programme; and 4) Only 30 percent of schools have high speed Internet and less than 40 percent of teachers can use such technologies as teaching tools.

Regarding vocational education, it was found that learners and graduates do not possess the competencies required by employers, and lack necessary basic knowledge and skills. Most of all, vocational education is not popular among students of high performance. Therefore, the shortage of capable technicians has been a serious problem in Thailand.

As for higher education, the focal point of concern was the quality of graduates, some of whom lacked sufficient abilities in thinking, analysis and problem-solving, necessary basic knowledge and skills, learning motivation, public mindedness, and dedication to work.

Moreover, the external quality assessment conducted by the Office of National Education Standards and Quality Assessment revealed that a large number of schools did not meet the standards concerning learners, teachers and school administrators.

13.1 Six Strategic Policies To Promote Educational Reform



When Professor Dr. Vichit Srisa-an took his office as the Minister of Education in 2006, the Ministry under his supervision formulated the six following strategic policies to promote educational reform:

1. Accelerating the implementation of educational reform by emphasising "morality-based knowledge", cultivating consciousness of the value of the Sufficiency Economy Philosophy, reconciliation, mediation, and democracy, and developing human resources by placing more importance on morality-based learning process that links the cooperation among family, community, religious institutions, and educational institutions;

- 2. Expanding basic educational opportunity to all Thai people to provide them with wider access to high quality education at all levels and of all types, free of charge;
- 3. Developing the quality and standards of education at all levels;
- 4. Decentralising the power of educational administration and management to educational service areas and schools;
- 5. Promoting the participation in educational provision of public and private sectors as well as local administrative organisations; and
- 6. Developing education in the special development areas of the Southern Border provinces.

Among the six policies mentioned above, the policy to develop the quality and standards of education at all levels was regarded as the first priority by the Minister of Education. Thus, several activities were undertaken to improve educational quality and several action plans were translated into innovative practices. These include: the implementation of "morality-based knowledge" at school level; the integration of the Sufficiency Economy Philosophy in education; increasing the per-head block grants for basic education; solving the problem of teachers' shortage by introducing the cooperative system of education; and organising the training for educational leaders as change agents to support the decentralisation of educational administration and management.

13.2 Six Strategies for Development of Educational Quality

Since the educational outcomes were not yet satisfactory, the Ministry of Education realised that it was necessary to call for more participation of all social sectors in improving the quality of Thai education and proposed this issue as a national agenda. The Office of the Education Council was directed by the Ministry of Education to formulate and propose strategies for educational quality development. In this regard, four task forces were appointed with two main responsibilities: 1) To analyse and synthesise problems and causes affecting quality of education; and 2) To collect information on educational innovation and related research to formulate the strategies for educational quality development. The task forces organised 30 meetings including the National Conference on the Quality of Education in which more than 3,000 educators, teachers, parents, news reporters, and concerned people attended. The whole process and the conference yielded the proposal of the six following strategies for educational quality development:

1. Quality Development of Learners

- 1) All children of early childhood stage will receive at least one year of an appropriate preparation for readiness in learning before entering Grade One in primary schools.
- 2) The criteria for graduation of each grade level and the evaluation system will be revised. Repetition should also be allowed so as to develop the quality and standards of learners.
- 3) The national reading campaign will be promoted to cultivate learning-loving habits, enthusiasm, and knowledge seeking skills in learners.
- 4) A manpower information centre should be established for those wishing to pursue higher education as well as those seeking employment.

2. Development of Teachers, Faculty and Educational Personnel

1) The revitalisation of former Teachers' Colleges: National Institutes of Education should be established, one in each of the four regions. Each institute may be located at an existing or former Teachers' College which demonstrated a high performance standard of teacher training. If National Institutes of Education are established with strong academics and professionalism, they will help nurture talented teachers for the new era and conduct research to pursue excellence in the teaching profession.

- 2) Improvement of the teacher recruiting system: This aims to attract the best and brightest graduates into the teaching profession.
- 3) Promotion of teacher morale: Teacher morale should be promoted by the enrichment of their knowledge and skills through continuing self-development and providing special remuneration for those who participate in professional development programmes.

3. Development of Information Technology for Education

- 1) Setting the standard for one student per computer at all levels and types of education.
- 2) Developing the computer network in the form of "National Education Network" by linking MOE-Net, Uni-Net, and Educational Television (ETV).
- 3) Establishing the Institute of Technology for Education and the Educational Technology Fund as the central agency to oversee policies and plans, promote the development and use of technology for education, develop contents and lessons through courseware, and prepare information technology personnel to support formal, non-formal and informal education.

4. Development of a Support System for Enhancing Educational Quality

- 1) Encouraging educational institutions to utilise the result of external quality assessment in improving the quality of education.
- 2) Improving the admission system to reflect teachinglearning and the development of students at the basic education level.
- 3) Developing the counseling system to encourage teachers to help individual students solve problems.
- 4) Promoting research collaboration and knowledge transfer between the private sector and higher educational institutions.

- 5) Establishing the National Vocational Qualification System, the system of transferring knowledge and experience, and an employment system that pays according to occupational competency. This includes improving career paths in order to attract vocational college graduates to enter the labour market.
- 6) Providing an educational coupon system to promote lifelong learning for the disadvantaged.
- 7) Applying area-based total reform especially in the three southern provinces and Border Patrol Police Schools.

5. Strengthening Quality Development of Educational Institutions

- 1) Expanding the project of training the change agents for developing educational personnel along with the decentralisation of power of educational administration to educational institutions.
- 2) Empowering self reliant schools with high performance to transform into charter schools.
- 3) Promoting good governance in higher education institutions along with the development of the university's board of trustees so that they take more active roles in the administration and operation of education.

6. Promotion of Educational Partnership from All Social Sectors

- 1) The government sets clear policy and goals in encouraging the private sector, community, and other social organisations to participate in education. Public schools shall refrain from competing with private schools in the areas where private schools perform well.
- 2) Developing mechanisms to encourage and motivate the private sector to take part in providing education, e.g. tax discounts and tax waivers.
- 3) Revising and readjusting rules and regulations to enable local administrative organisations to assist the government in education.



- 4) Strengthening the roles of educational boards at all levels at the national level, in educational service areas, and in schools so that they can engage in educational administration and management to their fullest potential.
- 5) The Ministry of Education encourages the public and private sectors as well as other organisations to participate in education by donating teaching media, equipment, and other materials for education.

The proposed draft of the "Strategies for the Educational Quality Development: The National Agenda 2008-2012" was submitted to the Council of Ministers and was approved on January 22, 2008 for effective implementation.

Concerned agencies, with the support of the Royal Thai Government and all stakeholders, need to improve educational quality at all levels and in all types of education to sustain national socio-economic development.





Chapter 14

Future Perspectives

Human resources development is a priority of the 10th National Economic and Social Development Plan (2007-2011) which was formulated with the recognition of structural changes in the society and population. After 2009, the decreasing number of the population of labour age will become obvious and affect the overall development of the country.

The increasing number of the elderly in Thai society creates the need to stimulate saving measures, to reform the pension and social security funds, and to increase the public health care budget. In addition, it is necessary to prepare elderly workers to be more productive and to encourage them to remain in the labour market for a longer period to offset the impacts caused by the decline of working-age population.

As in several other countries, the elderly have become a majority population in Thailand. At the same time, Thailand's economy and the quality of life of its people are facing challenges brought about by the knowledge-based society, global warming, natural disasters, decrease in natural resources, degradation of the environment and domestic violence.

The current Government endeavours to generate a balanced economic and social development in line with the Sufficiency Economy Philosophy. Some of these policies include: promotion of national unity and democracy; generation of peace and harmony in the Southernmost provinces; and provision of support for projects to prevent global warming and reduce its effects. In so doing, the Sufficiency Economy Philosophy will be promoted in various fields. For example, an application of the Philosophy in agricultural management is known as the New Theory Agriculture.

The New Theory Agriculture focuses on sustainable agricultural management and self-reliance of rural households, along with the proper management of land and water resources allowing farmers to live in harmony with nature and society. In practice, a farming area will be divided into appropriate segments for rice cultivation, crop and animal husbandry, water ponds, accommodations and other necessities. Additional strategies of the New Theory Agriculture include: development of communities with a focus on self-reliance and marketing opportunities; support for long-term savings; generation of energy sustainability; supervision of investment mobility; inculcation of environmental conservation awareness; support for increasing household consumption of alternative energies; increase of value and utility of products and technologies derived from Thai wisdom; and provision of morality-based knowledge.

The Royal Thai Government has continuously attached great importance to the provision and support of education. This chapter focuses on educational plans and strategies of the main agencies under the supervision of the Ministry of Education. Five main agencies under the Ministry of Education also formulated plans and strategies at both basic and higher education levels which are in line with the 1999 National Education Act, the 15-year National Education Plan (2002-2016), the Vocational Education Act, and the Second 15-Year Plan on Higher Education of Thailand.

14.1 Plans and Strategies in Basic Education

At the basic education level, several strategies have been implemented including improvement of the basic education

curriculum and teaching-learning process in certain subjects, such as mathematics, science and language education, to accommodate and facilitate all aspects of learner development, including gifted and talented students, disadvantaged students, and students with disabilities.

Increased access and quality of basic education has been realised through reforms in the admission system, national education tests, and improvement of learning outcomes of all types of education, vocational training and work experience.

As for early childhood development, the 2006-2015 Plan and Policy for Early Childhood Development was formulated by the Office of the Education Council, in cooperation with several public and private agencies. The 10-year Plan aims to support early childhood development, parents and other stakeholders as well as to promote an environment that facilitates early childhood development.

Included in the 2006-2015 Plan and Policy for Early Childhood Development are: national guidelines for early childhood development; concrete operational plans for effective mobilisation, management, and resource utilisation; and research and evaluation



to accelerate the development of children in the 0-5 age group and prepare them for primary education. In so doing, children less than five years of age will be provided with the opportunity for balanced development through





strengthened cooperation among responsible agencies and stakeholders.

14.2 Plans and Strategies in Vocational Education

Due to the decreasing population of workers of labour age, the increasing number of the elderly in Thai society, and the increasing demand for highly-skilled workers, the Office of the Vocational Education Commission recognises the need to prepare qualified people through education.

Formulated by the Office of the Vocational Education Commission, the Vocational Education Act focuses on three goals: 1) Promote cooperation between the public and private sectors in providing additional training for workers in various enterprises; 2) Decentralise functions and responsibilities of local administrative organisations in the areas of budget, personnel management and curriculum formulation. While policies and vocational qualifications will still be under the supervision of the Office of the Vocational Education Commission following decentralisation, local citizens will also be encouraged to participate in decision-making and in the monitoring operations. At present, management of technical and vocational education and training is delegated to 28 institutes. Once the Vocational Education Act becomes effective, the number of institutes will be expanded to 76, covering every province; and 3) Offer Bachelor's degrees in technology fields, focusing on practical work in line with domestic and regional market demand and niche markets. The degrees to be offered include Automotive Technology,







Fashion Design, Jewelry, Mould and Die Technology, Mechatronics, Garment and Textile Technology, Retailing, Information Technology, Hotel Management and Tourism.

In addition, four main goals were set by the Office of the Vocational Education Commission to improve the professional skills of vocational students as follows: 1) Increase of the number of vocational students; 2) Quality development of vocational education; 3) Community services; and 4) New entrepreneur preparation.

The Office of the Vocational Education Commission also supports concerned agencies and educational institutions to enable qualified applicants to further their study and to promote continuing education and lifelong learning. Actions taken by the Office of the Vocational Education Commission to implement this concept include: formulation of a 'validation of experience' system; revision of the curricula at the certificate and diploma levels; provision of credit accumulation and transfer for further education and work; and promotion of the connection between short course training and regular courses. The 'validation of experience' system corresponds to the competency-based vocational curriculum in which competency-based training is underscored and competence is assessed against performance criteria in terms of theoretical knowledge, practical skill, and attitude/personality that are necessary in the learner's career.

14.3 Plans and Strategies in Higher Education

The Framework of the Second 15-Year Plan for Higher Education of Thailand covers the period between 2008 and 2022. The goal of the Plan is to raise the quality of the Thai higher education system through several mechanisms and measures.

Highlights of the Second 15-Year Plan include: good governance, financial planning, development of higher education standards and university networking, fostering diversity within a unified system, and supporting university academic freedom.

It is expected that the Framework will lead to the production and development of graduates with the knowledge and skills critical to global competitiveness and sustainable development. The Framework comprises two major parts as follows:



- 1) The first part covers the local/global socio-economic environment affecting Thai society and higher education system, including: demography; energy and the environment; employment; violence and conflict management; decentralisation; students and youth in the post industrialised world (work-based education, community-based education, internship/apprenticeship within the social and real sectors, co-operative education and engineering practice); Sufficiency Economy; and
- 2) The second part covers nine aspects of the Thai higher education system, including articulation with secondary and vocational education; proliferation of higher education institutions; university governance and management; national competitiveness; financing higher education systems; staff and personnel development; university networks; programmes for Southern Thailand; and learning infrastructure.

The key factors for success of education at all levels and of all types are supportive government policies and strategies; concrete operational plans; sufficient budget allocations on a continual basis; and support from the several public and private agencies involved. With these factors, it is expected that educational policies of the Ministry of Education will contribute to human resource development and the increased competitiveness of Thailand.





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Appendices

THAILAND PROFILE 2007

Area : 513,115 sq.km. Capital : Bangkok

Climate : Tropical Monsoon (Ave. Temp. 23.7 - 32.5°C)

Population : 65.74 Million Population Growth : 0.68 % Labour Force : 36.94 Million

Life Expectancy : Total Population 72.55

(Male 70.24, Female 74.98)

Ethnic Groups : The majority are Thai. The rest includes

ethnic Chinese, Malays, Lao, Vietnamese,

Indians, and others.

Religion : Buddhism, the national religion, is the

professed faith of the majority. Other religions have absolute religious freedom.

Literacy Rate : 96 %

Language : Thai is the national and official language.

Dialects are spoken in rural areas. Other languages are Chinese, Malay and English.

Government : Constitutional Monarchy

Currency : baht (THB)

Exchange Rate (baht/USD): 1 US\$ = 34.6 baht (average rate in 2007) GDP growth: 4.8 % (2007, Bureau of the Budget)

GDP at current price : 7,816.5 billion baht GDP per capita : 111,376 (million baht)

Government expenditure : 1,566,200 million baht (18.5 % of GDP)

Government expenditure : 356,946.3 million baht

on education

Inflation : 2.0-2.5 % (2007, NESDB)

Unemployment rate : 1.2 %

THAILAND'S EDUCATIONAL PROFILE IN FIGURES

A. School-Age

Population (in thousands)

Pre-primary

Primary

Secondary

- Lower secondary
- Upper secondary

Bachelor Degree

Age Group	2002	2003	2004	2005	2006
3-5	2,961	2,987	2,991	2,936	2,838
6-11	5,820	5,808	5,801	5,839	5,816
12-17	5,723	5,737	5,771	4,346	6,316
- 12-14	2,881	2,914	2,931	2,633	3,163
- 15-17	2,842	2,823	2,841	1,713	3,153
18-21	4,220	4,077	3,939	2,038	4,199
3-21	18,724	18,609	18,503	15,159	19,169

B. Educational Attainment of Thai Population

Age Group	2002	2003	2004	2005	2006
15-59	8.1	8.3	8.4	8.6	8.7
- 15-39	9.3	9.5	9.7	9.9	10.1
- 40-59	6.3	6.4	6.6	6.9	6.9
60 and over	3.8	3.8	3.9	4.1	4.2

C. Student Enrolment in Formal Education (thousand persons)

Pre-primary

Primary

Secondary

- · Lower secondary
- Upper secondary
 - General
 - Vocational

Higher¹

Total

Total

2003	2004	2005	2006
2,539.2	2,466.7	2,460.5	2,497.9
6,065.5	5,967.8	5,839.6	5,715.2
4,130.5	4,284.6	4,340.3	4,596.1
2,464.4	2,634.0	2,633.9	2,742.6
1,666.1	1,650.6	1,706.4	1,853.5
1,059.8	1,038.6	1,008.2	1,089.4
606.3	612.0	698.2	764.0
1,462.4	2,993.5	2,238.3	2,430.6
14,197.6	15,712.6	14,878.7	15,239.8

D. Enrolment Ratio

Pre-primary

Primary

Secondary

Lower secondary

Upper secondary

- General
- Vocational

Higher¹

2003	2004	2005	2006
87.7	82.5	83.7	88.0
104.4	102.9	98.5	98.3
71.7	74.2	68.8	72.8
84.6	89.9	82.9	86.7
58.5	58.1	59.3	58.8
37.5	36.6	32.3	34.6
21.0	21.5	22.2	24.2
29.5	32.8	48.3	NA

¹ Excluding students in open universities

THAILAND'S EDUCATIONAL PROFILE IN FIGURES

E. Transition Rate

Lower secondary

Upper secondary

- General
- Vocational

Higher²

- Diploma
- Undergraduate

2002	2003	2004	2005	2006	
92.5	97.2	93.2	93.3	96.3	
82.0	81.0	87.2	87.2	87.6	
50.3	48.7	48.4	48.1	48.4	
31.7	32.4	38.8	39.1	39.2	
80.8	61.5	NA	NA	NA	
40.1	34.4	NA	42.4	42.6	
40.7	27.2	NA	78.1	86.2	

F. Retention Rate

Primary

Lower secondary

Upper secondary

- General
- Vocational

2002	2003	2004	2005	2006
89.5	90.1	90.3	90.3	91.1
91.1	93.8	91.8	91.8	93.1
80.9	78.4	80.4	NA	85.2
85.7	87.0	84.1	83.4	87.5
72.2	65.1	74.4	74.4NA	81.8

G. Number of Educational Institutions (2006) Whole Kingdom³

Pre-Primary

Primary

Lower secondary

Upper secondary (General)

Upper secondary (Vocational)

Total Number (Basic Education Level)

Below Bachelor Degree

Bachelor Degree

Postgraduate Degree

Total	Public	Private
47,203	44,280	2,923
32,475	30,568	1,907
11,124	10,112	1,012
3,173	2,751	422
804	421	383
51,233	47,728	3,805
887	NA	NA
197	NA	NA
231	NA	NA

H. Educational Budget

Amount (Billion Baht)

% of GDP

% of National Budget

2002	2003	2004	2005	2006
235.1	251.2	262.9	294.9	356.9
4.2	4.0	3.7	3.7	4.0
23.5	24.4	21.0	21.7	21.8

² Excluding new entrants in open universities.

³ These figures are higher than actual numbers of institutions because some institutions may provide more than one level of education.

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Ministry of Education

• http://www.moe.go.th

Office of the Education Council

- http://www.onec.go.th
- http://www.worldedreform.com
- http://www.edthai.com
- http://www.thaiedgov.org
- http://www.thailearn.net
- http://www.thaiteacher.org
- http://www.thaikids.org
- http://www.thaigifted.org
- http:///www.thaiedresearch.org
- http://www.onesqa.or.th
- http://www.thaiwisdom.org

Office of the Permanent Secretary

• http://www.moe.go.th/OPS_Page

Office of the Basic Education Commission

• http://www.obec.go.th

Office of the Higher Education Commission

• http://www.mua.go.th

Office of the Vocational Education Commission

• http://www.vec.go.th