Higher Education in Thailand and the National Reform Roadmap*

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Abstract

The 1999 National Education Act serves as a basis for the education reform of Thailand, including higher education. The paper represents a Thai input to the Thai-US Education Policy Roundtable held in 2001. Outlines of the status of higher education of Thailand and rationale for the higher education reform are given. Salient points of the administration and management reform are described. Four policy studies on higher education are carried out to supplement discussion at the Roundtable.

Status of Higher Education in Thailand

The higher education system in Thailand is quite complex and has lacked policy cohesion. It is under responsibility of 10 ministries and 1 independent agency. Key Ministries are the Ministry of Education (MOE) and the Ministry of University Affairs (MUA). Others are Public Health, Agriculture and Cooperatives, Defenses, Transport and Communications, Justice, Science, Technology and the Environment, Office of the Prime Minister and the Thai Red Cross.

In 2000 there are a total of 645 institutions, not counting the different campuses. 74 are under MUA, 489 under MOE and there are 82 specialized institutions. Two levels of tertiary education are offered, namely, Diploma Level and Degree Level. Programs can be classified into academic, professional and technology programs.

Regarding access to higher education, nearly one quarter of the higher education age-group have enrolled in higher education institutes, excluding open universities, Table 1. Thailand should be proud of this quality access to higher education. However, we recognize that at regional level access to formal education at all levels, in particular higher education, varies markedly between regions, especially with that of Bangkok area. Factors detrimental to access to quality education are socio-economic background and concentration of schools and higher education institutes in Bangkok and big cities. Moreover, quality education, not quantity education, is a determining factor of the present millennium in the age of the new economy.

With severe economic contraction since the 1997 economic collapse the numbers of secondary school students and higher education students have shrunk. But there are signs that the secondary school enrolment will pick up leading to more demand for access to higher education. On the
basis of the free 12 year basic education resulting from the 1999 Education Act, it is projected that the number of secondary school graduates and first year university intake will increase by about 2.5 to 3 times that of present in 15 years time. This poses a formidable challenge for educational planners to come up with a higher education system that can cope with this figure in the time of limited resources, yet maintaining quality education. It is recognized that Thailand has 5 to 10 years to fix her education system, including higher education, if Thailand is to be relevant in the region.

**Table 1** School-Age Population (millions) and Enrolment Ratio by Level

<table>
<thead>
<tr>
<th>Level</th>
<th>1997</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Primary</td>
<td>3.202</td>
<td>2.892</td>
</tr>
<tr>
<td>Primary</td>
<td>6.539</td>
<td>5.838</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Lower</td>
<td>3.395</td>
<td>2.827</td>
</tr>
<tr>
<td>- Upper</td>
<td>3.464</td>
<td>3.006</td>
</tr>
<tr>
<td>Higher</td>
<td>4.662</td>
<td>4.431</td>
</tr>
</tbody>
</table>

**Notes:**
- Enrolment depends on socio-economic factors
- 1997 economic collapse has impacts on enrolment
- Secondary school graduates will increase by 2.5 times in 15 years

Thai higher education institutes are traditionally dominated by the public sectors since the end of the Second World War. However, the Thai private sector, as private colleges, has played a very important role in providing higher education during the last 2 decades since the government decoupled the question of national security from higher education and allowed private colleges to be established, Table 2. This means that financial resources for higher education can be mobilized from the public as well as the private sector.

**Table 2** Number of Educational Institutions (1999)

<table>
<thead>
<tr>
<th>Level</th>
<th>Total</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Kingdom</td>
<td>50,402</td>
<td>47,290</td>
<td>3,112</td>
</tr>
<tr>
<td>Pre-Primary</td>
<td>45,577</td>
<td>43,123</td>
<td>2,454</td>
</tr>
<tr>
<td>Primary</td>
<td>33,840</td>
<td>32,343</td>
<td>1,497</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>10,109</td>
<td>9,555</td>
<td>554</td>
</tr>
<tr>
<td>Upper Secondary (General)</td>
<td>2,563</td>
<td>2,416</td>
<td>147</td>
</tr>
<tr>
<td>Upper Secondary (Vocational)</td>
<td>854</td>
<td>542</td>
<td>312</td>
</tr>
<tr>
<td>Below Bachelor’s Degree</td>
<td>573</td>
<td>304</td>
<td>269</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>178</td>
<td>145</td>
<td>33</td>
</tr>
<tr>
<td>Post-Graduate Degree</td>
<td>51</td>
<td>31</td>
<td>20</td>
</tr>
</tbody>
</table>
Regarding the public contribution to formal higher education, about 15 to 17% of the total education budget is spent on higher education, Table 3. However, there are no reliable estimates of private or personal contribution to higher education as a whole.

Thailand is unique among the countries in south-east Asia with higher education institutes located evenly throughout the country. Only 2 provinces have no higher education institutes. With these optimum locations of higher education institutes, increasing role of the private sector in higher education, and judicious applications of information technology it is hoped that the country can cope with the immense increase in demand for higher education as mentioned above. Moreover, under the 1999 National Education Act, participation of city-based, province-based organizations and even municipalities in higher education provision is possible. Financial resources for higher education can be secured from these city or province-based organizations and local government, in addition to direct funding from the central government.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Education Budget</th>
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<tbody>
<tr>
<td></td>
<td>1997</td>
</tr>
<tr>
<td>Billion Baht</td>
<td>202.9</td>
</tr>
<tr>
<td>% of GNP</td>
<td>3.9</td>
</tr>
<tr>
<td>% of National Budget</td>
<td>20.6</td>
</tr>
<tr>
<td>Higher Education Budget as % of Education Budget</td>
<td>-</td>
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</tbody>
</table>

Modern industrialization of the country began nearly 40 years ago but the country never coupled higher education and professional manpower development with industries, along the line that newly industrializing economies such as South Korea, Taiwan, Hong Kong and Singapore. Thailand has lost nearly 4 decades of this golden opportunity. It is hoped that the enlightened public will induce future government to come up with intelligent and far sighted policies with proper fiscal and financial incentives to enlist support and contribution from business and industrial sectors in higher education and professional manpower development, especially during the New Economy millennium.

The Higher Education Reform

Thailand first looked at the reform or transformation of higher education in a systematic manner at the end of 1980s when MUA prepared the first 15 year Higher Education Plan covering 1990 to 2004. The atmosphere at that time was one of economic buoyancy and international competitiveness. Ten years have since passed, the economy has been in deep recession and it is still debated whether the recovery is V or U or L shape. New issues have emerged. The new Constitution was promulgated in 1997 and the first National Education Act was enacted in 1999. It is strongly felt that the higher education system need to be overhauled if Thailand is move forward with renewed confidence and to be a country of relevance and prominence in the new millennium.
Rationale for Higher Education Reform

We can summarize the rationale for the higher education reform from as follows:

1. Intrinsic problems and crises

We feel that the higher education system has suffered from an inefficient management structure. Examples of these are limited management flexibility of the Civil Services under which the public higher education system is. During the economic boom of the late 1980s until the economic collapse of 1997 the country had witnessed brain drain of quality manpower from public universities and the public sectors. Due to bureaucratic difficulties, termination of public organizations, including university faculties and programs offered, are next to be impossible. Non optimum resource utilizations as a result of uncoordinated operation, duplication of works and outmoded programs are encountered.

The private sector, which has replaced the public sector as the major employers of university graduates since the 1980s, has complaint of the mismatch of graduate profiles and market requirements. Yet the private sector had to employ these mismatched graduates during the economic boom as there was no other alternative on supplying of higher education manpower.

It is observed that Thai universities have low level of research and development works. Moreover, most the research works are not meaningful for the economic development. The higher education institutes in Thailand were set up to produce professionals firstly for the bureaucratic reform during the reign of King Chulalongkorn nearly a century ago. Strictly speaking, the Thai first tertiary institute was not a university in the sense of Western World where search for new knowledge through research has always been part of the university culture. After the 1932 coup d’etat leading to the constitutional Monarchy and until the period up to the Second World War, university graduates were employed to man subsequent public agencies and took part in physical infrastructure developments, replacing European experts brought in earlier on. As the country embarked on the modern development four decades ago after the end of the Second World War, the bureaucracy kept expanding. So did the public universities and the demand of more professionals, never research work.

Due to rapid industrialization and overseas investment promotion three decades ago, the private sector became the major employer of university graduates. The Thai industries have been heavily protected such that no meaningful technology transfer and adaptation has taken place. Research and development in the private sector has been insignificant. Hence, no expectations on universities doing research and development works. The corresponding research funding has been well below the state of economic development of Thailand. Newly Industrializing Economies at the time of comparable economic state to that of Thailand spent much more on public research and had incentive to strengthen industry investment in technology transfer and technical manpower development. Consequently, the Thai research manpower, measured either with respect to the population or the labor force, and research spending, as percentage of
GNP, is 5 to 10 times below those of the industrializing economies due to low level of activities 3-4 decades ago at the take off stage.

Problems of equity and access to higher education have been recognized, and partially solved. Nearly half (44%) of higher education institutes are located in and around Bangkok. Close to a quarter (70%) of higher education students are from families with good economic background. Quota systems have been adopted for 2 decades for admission of provincial students to universities without going through the common university entrance examination, that of which upcountry students cannot equally compete due to lower quality of school education. At the end of the economic boom, decision was made to establish over 30 new campuses throughout the country, using videoconferencing facilities for teaching, creating the so-called IT campuses. It was hoped that IT would help solve the perennial problems of shortages of university lecturers, and enables access of provincial students to quality lecturers.

There exists a low degree of collaboration between higher education institutions and the modern economic sector, especially Thai industries. Since the investment privileges accorded to industrial development during the 4 decades of industrialization are not coupled to higher manpower development, technology transfer and research, similar to the public policies and strategies of the newly industrializing economies. Industries view universities as solely responsible of producing professional workforce. Very few university-industry education co-operations exists.

2. Demand of quality workforce to enhance national competitiveness in world community

Thailand had witnessed a continuous decline in national competitiveness for the past 5 years. Based of the IMD ranking, the overall competitiveness of the country drops from 29 in 1997 to 39 in 1998 and 34 in 1999, 33 in 2000, especially in the fields of science and technology. Higher education is recognized as being a major solution to this competitiveness ranking.

3. Limitation of national resources for education

Education budget has traditionally been a major part of the Government budget, about 20%. The economic contraction after the economic collapse in 1997, reflected by negative growth in GDP (8.7% in 1995, 5.5% in 1996, - 0.4% in 1997, -8% in 1998 and 0.9 % in 1999), makes it difficult to maintain the education budget. Decreasing of public investment in higher education during the 1st to the 8th National Education Development Plans is noted, varying between 0.24-0.58% of GDP or 0.7-3.06% of GNP.

4. Development and impacts of information technology

Thailand has been on the receiving end, as far as the hardware, contents and applications, of the information technology(IT) since its emergence in the second half of the 1990s. However, this
may not be so in the future if we can integrate IT into strategies for education, and in particular higher education, workforce development and life long education. The explosion of knowledge and extensive global connectivity should be seen as a great opportunity, rather than threat, on the Thai society, culture and economic growth.

5. Growing demand for higher education

The new policy on the 9-year compulsory education and 12-year free basic education as a consequence of the 1999 National Education Act will result in a large increase of high school graduates. The figures are 0.7 million in 2000 to 1.8 million in 2016, an increase of 150% in 15 years time. Demand for higher education places will increase correspondingly and put severe pressure on the education and higher education systems with intrinsic weaknesses described above.

There exist limitations on admission capacity of higher education institutes under MUA and MOE. Only 80% of school graduates can be admitted.

6. Implications and impacts of the 1999 National Education Act

The National Education Act heralds transformations unheard of in the Thai Education world, if fully implemented. It may be the most major transformation since the first transformation that introduced public education and institutionalization of schools over a century ago. Thai brought basic education to the mass, education used to be in only for boys in the restricted domain of temples, palaces and nobility. Pertaining to the higher education system, the higher education reform calls, inter alia,

- restructuring of the higher education administrative system through merging of MOE, MUA and the National Education Commission(NEC), and creation of the Ministry of Education, Religions and Culture,

- changing of the public sector role in public higher education institutes from regulatory to supervisory, through incorporating public institutes, presently part of the Civil Services, into autonomous agencies or public corporates,

- creation of a national agency on education quality assurance that will set national education standards and undertake systematic implementation of quality assessment,

- extensive resources mobilization and investment in education, and

- redirecting missions of higher education towards societal participation, student-centered learning and lifelong learning.
Charting the Road of Higher Education Reform (1999-2000)

The groundwork on the Reform started with in-depth analysis of the 1997 Constitution and the 1999 National Education Act, and their implications on the Thai society and education. Evaluations on the past and current higher education systems and trends were taken. Research on overseas higher education reforms were conducted.

With all these information, critical issues of the Reform were identified. The conceptual framework was then developed. It was recognized that transition management is crucial, and transition mechanisms are required. Participation of the public and various stakeholders was brought about through public seminars and workshops. The final outcome was submitted to ONEC for transmission to and consideration of the National Education Reform Office (NERO), a specialized public agency set up with the task of preparing the new administrative structure of the new Ministry, the new personnel management system, requisite draft bills and the foundation of financing the overall education reform including the higher education. NERO will present its work, including draft bills, to the government for consideration. The work of NERO will lead to the establishment of the new Ministry by August 2002.

Goals of the Higher Education Reform

Under the higher education reform it is aimed to achieve the following goals:

1. The Thai higher education system with distinctive division regarding levels and types. There will be a central and unified mechanism of policy formulation and integration, planning, budget allocation and evaluation, in the body of the new Ministry.

2. The higher education system with improved access and participation.

3. Achieving academic excellence, requisite standards and quality assurance.

4. Management with autonomy and flexibility.

5. Mobilization of resources from various sectors.

6. Balanced development of the Thais and Thai graduates with desirable attributes of physical and mental strength, intellect and ethics.

Basic Tenet of Higher Education System

The restructured higher education system will have as its basic and important tenet a unifying policy formulation, and an equally crucial attribute of diversity of practices and implementations. Salient features are:
1. Division of the higher education system into two levels: sub-degree and degree levels

2. National bodies to coordinate policy formulation, planning, education standards, resources mobilization, monitoring and evaluation.

3. The overall system will consist of public institutions, private institutions, specialized education institutions and area-based institutions. The last category is a new form whereby municipalities, local (tambon) administration councils, and provincial administration councils can set up higher education institutes.

Higher Education and Administration Structure Reform

Issues that are addressed under the new higher education administration structure are

1. Maintaining of unified policy formulation and standards, while delegating authority and administrative and management responsibilities to educational service areas.

2. Administration and management of the education system are divided into 3 levels: the national level, the educational service areas level, and individual institutions.
   - The National Level: The Ministry of Education is mandated to supervise education at every level, under which 2 national bodies will manage higher education, namely, the National Council for Education, Religions and Culture, and the National Commission for Higher Education.
   - The Educational Service Areas Level: The Educational Service Area Committees and the National Council for Education, Religion and Culture are mandated to supervise sub-degree level institutions.
   - Individual Institutions Level: Degree level institutions are autonomous in management of their academic, financial and personnel affairs under supervision of their respective institution councils or governing boards.

3. There will be independent national organizations of common interest, in the form of autonomous agencies or public corporates, such as institute of standards and quality assurance, institute of education technology, organization of teachers and educational administrators, etc.

Administration and Management Reform

On the administration and management reform we envisage the following scenario with introduction of new and innovative mechanisms.

1. New missions and functions
   Traditional missions and functions of higher education are teaching, research, provision of academic services to society, and promotion of arts and cultures. The first new expectation is placed upon higher education institutes to play roles of watchdogs, social beacons and
society conscience building. This came out of realization that universities had played passive roles during the rapid socio-economic transformation of Thailand during the last 2 decades, this being distinct from the 2510s when leading social and political movements were university-driven. The second expectation is for higher education institutes on manpower development, not only producing graduates but being a pivotal and important instrument in professional upgrading and life long learning. This being so, the target groups for higher education institutes will not only be hundreds of thousands of school graduates a year as present, but millions of the workforce in the future.

2. Education administration and management

Coherence in policy setting
The Ministry of Education, Religions and Culture will be focal to unity and coherence in education policy formulation, planning and higher education standards. As manpower must be continuously developed, lifelong and continuous education are promoted. Improvement of access and equity are to be further pursued. Transfer of credits among institutions should be encouraged, the concept of which has been around for some time but hardly happens in practice. Recognition of work experience in formal education program will take place.

Incorporation of public universities
A systematic transition of public higher education institutions from being a part of the Civil Services to autonomous institutions will happen. Indicators on preparedness for the transformation will be developed. Capacity for autonomous management will be strengthened.

Autonomous or incorporated higher education institutions will be accorded block grants budget. Unit cost of providing higher education in various disciplines and degree levels are to be formulated. Performance auditing mechanisms for academic, financial and management will be developed.

Internationalization of higher education with Thai values
The higher education system will be more internationalized bringing the Thai education system to the international standard as well as making Thailand the country of higher education destination for South East Asia. Yet, during the age of internationalizing Thai higher education, retention, refinement and improvement of indigenous capability and knowledge must be concurrently pursued so that Thais will maintain optimum balance of indigenous and global knowledge.

Good governance culture
Good governance will be an important issue in management of autonomous universities, especially the public institutions. The institution boards or university councils need to be strengthened as they represent the government (MUA or MOE) and the public interest in overall internal management of a university, once a public university is incorporated. Most current university councils carry pro-forma duty. A university council, in a new management
context, is supreme in setting the vision and direction of a university, formulating policy on education and research, overseeing the personnel system, budget and finance. Performance evaluation of faculties, functional units as well as senior administrators are to be carried out by a university council. An internal audit unit needs to be similarly strengthened to do internal auditing and performance evaluation, in addition to simply auditing of accounts normally carried out by public agencies. Reporting, auditing and assessment will become regular features and are a manifestation of transparency and accountability dimensions of good governance.

High caliber manpower and the enterprising spirit
Systematic recruitment of academic staff and personnel of higher educations institutes must be established. Personnel development, key to organization efficiency and effectiveness, has not been priorities of the Civil Services in the past. However, if universities are to fulfill the new missions and functions outlined above and meet expectations of the society, high caliber academic staff and high quality personnel are requisite. Adequate resources must be allocated for the purpose.

Enterprising spirit is a new trait to be cultivated as a higher education culture. University staff need to be innovative in their thinking, and enterprising for the benefits of a university and the public. Entrepreneurs will bring innovations and dynamism to Thai business and economic communities, and enhance competitiveness. Universities are seen as a potential source and incubator for young and technologically oriented entrepreneurs. This has been successfully demonstrated in advanced and newly industrializing economies.

Extensive resources mobilization
International competitiveness derives mainly from qualified professional manpower and accumulated intellectual properties from research and innovations. There is a strong correlation between the international competitiveness and the quality of higher education institutes. Higher education of quality is costly. Limitations exist, at least in the short and medium terms, on public financing of higher education due to economic constraints, increase in funding requirement for the education and constitution reforms resulting from the 1999 National Education Act and the 1997 Constitution, respectively. Extensive resources mobilization are necessary if the higher education reform will bear fruits. Cultivation of the new stakeholders for higher education is to be made through better public understanding and appreciation of the national benefits resulting from high quality education. Public and private commitments to higher education may need both simultaneous promotion of public spirit and tax incentives.

New public and private financing mechanisms for higher education are to be developed. The traditional one has always been direct funding to institutions (for public institutions). Fund for student loans, introduced during the 8th Plan (1997-2001), need to be increased to accommodate large increase in projected numbers of higher education students. Funding could be shifted overtime from supply-side financing (direct to institutions) to demand-side financing (student loans). Loans are available for students of public and private institutions. Loans conditions,
based on family earning, and loans payment need to be revised. There have been calls to make loans payment income-contingent and, possibly, as graduate taxes.

Universities are the most important institution of a country to conduct research, apart from the fact that research is one the important functions of Thai universities. Research in Thai universities is weak. To rectify this for the benefit of Thailand, massive research capacity building over few decades are required. Fundamentally speaking, more competent researchers of critical numbers in any field needs to be produced through doctoral studies. Intensity and continuity of research must be achieved. Direct and increase funding of basic research to universities and competitive bidding for research projects must be realized.

On the private funding at individual level, incentives should be developed for families to spend more on education and higher education, perhaps, through income tax allowance. Incentives for business corporates and industries to contribute to higher education, including research financing, should be in place. Apart from direct grants, they can become education partners through provision of facilities for training and make available professionals as lecturers, for example. Corporate tax allowances can be one instrument.

Other financing mechanisms to be considered may be specific funds targeting specific issues of higher education institutions. The government can consider establish funds for university staff development, research, innovations and entrepreneurship, effective management and good governance development. These are issues that required quantum amount of funding over sustained periods, not in the traditional domain of an annual budget process, to yield outputs and have reasonable impacts. They need goals and strategies at national and individual institution levels. Financing these can come from the annual government budget, education tax, taxes on cigarettes and alcoholic drinks, government bonds and overseas loans.

Networking institutions and society
There are over 600 higher education institutions and 130 degree granting institutions throughout the country. Networking these institutions will make available quality academic programs for production of professional manpower and extensive, diversified and nation-wide education services for manpower upgrading and life-long education. Transfer of credits among institutes and recognition and accreditation of work experience are to be promoted. Collaborative research and service work of common interest among institutes are not common and need to be promoted by proper incentives. Internet connectivity of institutions will enhance cooperation modes.

For higher education institutions to better service the society, networking with other education bodies such as schools, public bodies at national and local levels, for example, local (tambon) administration councils, and the private sector is indispensable.
3. Academic management and teaching organization

**Novel mechanisms for teaching, learning, knowledge and skills development**
The higher education reform will promote novel curricula and mechanisms for teaching and learning. This is to ensure flexibility and diversification to meet demand of individual learners, and dynamic national requirements. Adoption of learning innovation and information technology will feature prominently. The underlining principle of learner-centered learning, central to the education reform, will be observe at higher education level. Analytical skills, critical thinking and learning motivation are key attributes of the new era. Moreover, management of higher education institutions will place importance on research, accumulation of knowledge and technology for development of the nation.

**Internal assessment and evaluation**
Capability of higher education institutions to carry internal assessment and evaluation of academic and management performance will be strengthened. This will lead to improvement of education quality. Moreover, it reflects accountability of the higher education system to the public support.

4. Higher education standards and quality

Pursuant to the discussion above, an internal quality assurance mechanism will be set up within each institution. A national body mandated to undertake external quality assurance as stipulated by the 1999 National Education Act will be established. This agency will be in charge of external evaluation of all educational institutes, from primary to tertiary levels.

The Ministry of Education, Religion and Culture, through the National Commission for Higher Education will set up common standards for higher education institutions while procedures for accreditation will be developed by the national body on standards and education evaluation. Professional organizations will be called upon to take active roles in higher education standards setting and quality assurance.

To support the work of standards setting, quality assurance and assessment, information systems, databases, quality indicators for higher education will be developed.

**Critical Success Factors**

To attain the goals of the higher education reform several critical success factors have been identified. They have to be closely activated.

1. Public awareness of roles and importance of higher education to national development and competitiveness needs to be stimulated. Building of consensus on the goals, strategies and measures for the reform is important. Stakeholder cultivation is new but has to be promoted.
2. Good coordination between MOE, MUA, ONEC and higher education institutions are required.

3. Clear and coherent government policy with continuity must be secured.

4. Adequate basic logical and physical infrastructures development, especially management mechanism, manpower improvements, IT supports, will lead to capacity building of higher education and success of the reform.

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Annex 1

Policy Studies for the Thai-US Roundtable

Three major issues have been selected for the Thai-US Roundtable. They are financing of higher education, virtual university and non-baccalaureate higher education. They are the three fields that US has lots of experience. It is felt that Thailand should also review development of thoughts of Thai higher education at the critical interface between the last and the present millennia. Thailand may differ from the U.S. in terms of economic paradigms. The U.S. is leading the transition into the so-called new economy. Thailand is concurrently managing 4 economies. First is the agrarian economy where two thirds of the Thai population still depend, the U.S. has none of this. Secondly, manufacturing/industrial economy. Thirdly, modern services economy. Fourthly, the new economy. Thailand must move forward as a country of renewed confidence, relevance, and preeminence. Invigorated higher education to support the four concurrent economies is one of the key factor.

The first study undertaken for the Roundtable is on Development Thoughts of the 1990s. The evolution of higher education thoughts during one decade of changing socio-economic contexts from higher education for international competitiveness of the early 1990s of the double digit growth period to higher education, international competitiveness and sufficient economy in the late 1990s. The end of the 1990s brought Thailand the 1997 Constitution with its immense ramification of socio-political transformation, the economic crash and the 1999 National Education Act.

The second study is on Financing of Higher Education in Thailand, based on analysis and of information pertaining to financing of the present higher education system. The information has not been systematically recorded and is not readily available for comparison. Issues on financing the future higher education system in the light of the 1999 National Education Act are addressed, taking into consideration that the number of secondary school graduates would increase by 2.5 to 3 times in 15 years. Moreover, how Thailand can address this in the light of limited resources in the next decade and the transition into new economy.

The third study is on Development of Virtual University in Thailand. Overseas concept and practices of virtual university and the Thai experiences are reviewed. We feel that in the light of higher education for the masses and life-long learning virtual university would be the mode of education and learning to come.

The fourth study is on Models of Non-Baccalaureate Higher Education Institutes. Thailand has limited experience in this field, especially the community colleges approach that is unique to the U.S. and is highly successful.