

**ADB TA 3585 – THA
Education Sector Reform**

**The Thailand Educational Reform Project
School Reform Policy**

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**By
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Executive Summary

This technical assistance (TA) project was undertaken to strengthen the capacity of the Thai Government to pursue sustainable and quality development in teaching and learning. This TA follows the guidelines mapped out in previous ADB Social Sector Loans and technical assistance grants with the Thai government. The TA consists of the following components: 1) School reform policy; 2) Teacher education; 3) Information technology for education; and, 4) Education improvement model (ADB TA Pilot Project). This report focuses on the first component, school reform policy, summarizes the findings of the other components, and provides recommendations for further assistance.

The need for educational reform can be explained in both international and national contexts. Internationally, societies are changing from industrial to information-based societies in which the creation and dissemination of knowledge play critical roles in both individual and social development. Accordingly, an education paradigm for knowledge-based societies is emerging in which high-order thinking skills, communication skills and continuous learning are emphasized. International experiences show, however, that education reform does not simply happen within a classroom, but the whole system, within which education takes place, needs to change. Subsequently, the key elements for successful reform at the state, school and classroom levels are introduced.

Educators, politicians, and bureaucrats, all agree that educational reform is a dire need for Thailand. Thailand's international competitiveness has declined in recent years due, in large part, to weak human resources, especially in science and technology fields. Inefficient management and administration of the education system, inequity of access to quality education, inadequately qualified teachers, and a rigid learning environment are identified as prime causes for the failure to address the private sector's human resource needs.

The current educational reform in Thailand is a landmark movement after nearly 100 years of education under the present system. Thailand's 1997 Constitution paved the way for reform. Subsequently, the National Education Act 1999 (NEA) laid down a solid foundation to initiate the reform. The major components of the NEA include: 1) Ensuring basic education for all; 2) Reform of the education system; 3) Learning reform; 4) Reorganization of administrative system; 5) Introducing a system of educational quality assurance; 6) Enhancing professionalism and the quality of teaching profession; 7) Mobilization of resources and investment for education; and, 8) ICT for educational reform. In order to operationalize the NEA, the Office of Educational Reform (OER) was established in 2000 for a duration of three years.

The progress of educational reform is, in general, at the policy formation stage. The problems in education are defined and generally agreed upon largely through awareness building and education efforts. Significant amounts of research have been

conducted and education-related agencies have intensively discussed and debated the proposals for reform. However, the approaches for implementation of reform have not been agreed upon by the stakeholders. A major obstacle to the reform process is the difference in views on structural changes. The OER submitted a proposal on educational reform, including draft bills necessary for implementation. However, the cabinet had not approved any of the bills as of March 2002. It is likely that the policy, structure and approaches will not be agreed upon by August 20, 2002, the impending due date for launching the reformed education system.

At the same time, a number of pilot projects are being or have been implemented to help promote the educational reform process. Pilot projects have concentrated on the areas of: learning reform, ICT for education, and decentralization of administration and management. These projects indicate the need for sustained efforts, stakeholder participation and collaboration, and support mechanisms. The ADB TA Pilot Project focused on learning reform, and confirmed the need for continuous training for teachers, administrators, and facilitators, so they can fully understand the concepts of the reform. Furthermore, a synthesis of these pilot projects, individually and collectively, is needed, so that it can provide useful research-based options for both the policy and classroom levels. NGOs in Thailand can help educational reform by providing input to policy formation and acting as implementation agents particularly in facilitating local community participation.

To successfully implement educational reform in Thailand, a number of key areas must be addressed including the approaches to learning and curriculum reforms, professionalization of teachers, appropriate assessment, use of technology, and considering unique Thai cultural aspects. Educators first need to clearly understand the various pedagogues before choosing the best approach for particular situations. In the learner-centered approach, the teachers can choose elements of the traditional and constructivist approaches that are appropriate for particular learning situations. In addition to training, the professionalization of teachers requires the establishment of systematic support mechanisms including teachers licensing and teacher incentive schemes. Quality assurance of educational institutions is also an important tool for changing the way teaching and learning is conducted by focusing on educational outputs consistent with reform objectives. Technology, including the Internet, computers, satellite, videos, etc., also has great potential to contribute to reform by reaching a greater audience and by providing standardized, quality educational alternatives. Finally, to benefit reform, unique Thai cultural aspects such as patience and good heartedness should be nurtured, while others such as rigid hierarchical walls need to be disassembled through decentralization and a change in mind-set.

The current educational reform in Thailand is innovative, far-sighted and comprehensive, and Thailand's commitment to undertake such an ambitious reform should be genuinely supported. In the near-term, the Thai government and the ADB should proceed by supporting learning reform because: 1) Learning reform is focal to educational reform; 2) All stakeholders agree that learning reform is essential; 3) The ADB TA Pilot Project and other pilot projects have made significant progress that can be built upon; 4) Learning reform can proceed without further legislation; and, 5)

Understanding and internalizing learning reform concepts is a long process that needs time and nurturing. It should be stressed, however, that successful nationwide implementation cannot be realized until the broader structural and policy issues are resolved.

Based on the lessons learned from the ADB Pilot Project, other pilot projects, the research on teacher development for quality learning, and on the use of ICT for education, it is therefore recommended that the Thai government and the ADB consider supporting learning reform through capacity building for teachers, administrators and facilitators, developing systematic support mechanisms for teachers, and establishing an ICT educators' network. Components include:

1. ADB TA Pilot Project Expansion: Capacity Building on Learning Reform for Educators

Component 1: Synthesis of Lessons-Learned from Pilot Projects

Component 2: Implementation of Expanded ADB TA Pilot Project

- a) Continuous workshops and seminars
- b) On-site facilitation
- c) Establishing learning resource centers for access to information
- d) Community and NGO participation
- e) Developing templates/approaches to provide tools for own-planning
- f) Establishing professional communities

2. Establishing Systematic Support Mechanisms

Component 1: Define Roles and Responsibilities

- a) Manual of Policy and Procedures
- b) National Teacher Development Framework

Component 2: Develop Systematic Support Mechanisms

- a) Decentralize management practices
- b) Teacher incentive schemes
- c) Quality assurance of teachers and educational institutions
- d) Teacher licensing
- e) Education Management Information Systems (EMIS)
- f) Research

3. Establishing the Asian Educator's Network (AEN): ICT for Educational Reform

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The author sincerely appreciates all the interviewees who were willing to share their time to discuss the educational reform. Their names are listed in Appendix A. Their insights and opinions are invaluable in trying to understand the reality and future direction of the reform.

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Acronyms

ACERC	Area Committee for Education, Religion and Culture
ADB	Asian Development Bank
AEN	Asian Educators' Network
ASCD	Association for Supervision and Curriculum Development
BMA	Bangkok Metropolitan Administration
DCID	Department of Curriculum and Instruction Development
DFA	Department of Fine Arts
DGE	Department of General Education
DOVE	Department of Vocational Education
EMIC	Education Management Information Center
EMIS	Education Management Information Systems
GO	Government Organization
ICT	Information and Communication Technologies
IEA	International Association for the Evaluation of Educational Achievement
IIMD	International Institute for Management Development
IPST	Institute for the Promotion of the Teaching of Science and Technology
IT	Information Technologies
LEA	Local Education Service Area
LRT	Local Research Team
MERC	Ministry of Education, Religion and Culture
MOE	Ministry of Education
MOI	Ministry of Interior
MOPP	Manual of Policy and Procedures
MSU	Michigan State University
MUA	Ministry of University Affairs
NECTEC	National Electronic and Computer Technology Center
NESDB	Office of the National Economic and Social Development Board
NGO	Non-Government Organization
NTDF	National Teacher Development Framework
OER	Office of Educational Reform
ONEC	Office of the National Education Commission
ONES	Office of National Education Standards and Quality Assurance
ONPEC	Office of the National Primary Education Commission
OPEC	Office of the Private Education Commission
OTCSC	Office of the Teacher Civil Service Commission
OTEA	Organization for Teachers and Educational Administrators
PDCA	Plan, Develop, Check and Act
RECOFTC	Regional Community Forestry Training Center
RI	Rajaphat Institute
RIT	Rajamangala Institute of Technology
SEQI	Secondary Education Quality Improvement Project

SFEP	Social Forestry, Education and Participation Project
SSP	Social Sector Program
TA	Technical Assistance
TERO	Teacher Education Reform Office
TIMSS	Third International Mathematics and Science Study

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Chapter 1 Introduction

1.1. Background of the Technical Assistance

The Technical Assistance for Education Reform project -TA 3585-THA- is the latest in a series of technical assistance projects that the Asian Development Bank (ADB) has provided to support the educational reform process in Thailand. The educational reform that Thailand is currently undertaking, mandated by the 1997 Constitution and the 1999 National Education Act (NEA), is a prescient, innovative, and ambitious endeavor. In order to successfully implement the reform, the ADB and the Thai government have committed a significant amount of effort and support.

Initial assistance, provided under the Social Sector Program (SSP) -Loan 1611-THA-, was agreed upon with the Thai Government in March 1998. The purpose of the SSP loan was to address two major issues: 1) the immediate social impacts of the 1997 economic crisis; and, 2) the underlying structural problems of social support mechanisms that the crisis brought to the foreground. The loan program provided a national framework to review and adjust the implementation of its social sector activities in three areas: 1) labor market and social welfare; 2) health; and, 3) education. Assistance provided under the SSP loan was used to prepare policies for greater access to education, especially for vulnerable groups such as those displaced by the crisis and the economically disadvantaged.

The accompanying technical assistance project, the Education Management and Financing Study (TA2996-THA), was implemented over a ten-month period, between July 1998 and April 1999. The study focused on the following four aspects which were central to both the principal policy objectives of the SSP and the NEA:

1. Improvement in the quality of priority education programs through better allocation of resources;
2. Reduction of the incidence of dropouts from the school system due to financial difficulties;
3. Decentralization of financial and management aspects to make all levels of education more responsive to societal and community needs; and,
4. Rationalization of the staff size and deployment, and the establishment of a new personnel management system.

The TA was conducted in parallel with the NEA preparation process. The final report took into account the debate on educational reform, and policy recommendations of the study were well reflected in the final NEA. However, many of the recommended implementation measures have not been carried out as of March 2002, since the Thai Government and other stakeholders have not reached a consensus on the directions and priorities of educational reform. A number of important enabling legislative bills,

particularly on decentralization issues, must be passed before full implementation can begin.

1.2. Objectives of the Technical Assistance for Education Reform: TA3585

Although many of the administrative and structural issues of educational reform addressed in TA2996-THA remain unresolved, Thai educators are moving ahead on the implementation of learning reform measures. Therefore, the Technical Assistance for Education Reform: TA3585 was undertaken to strengthen the capacity of the Thai Government to pursue sustainable and quality development in teaching and learning. The TA is organized in the following technical assistance components:

- 1) School Reform Policy – an international consultant analyzed the current educational reform process in Thailand, with special emphasis on learning reform. The report integrates the inputs of other team members and recommends best avenues for future ADB support for learning reform. This component is described in this report.
- 2) Teacher Education – an international consultant reviewed the present teacher training practices and issues of teacher quality, and provided recommendation on improvements for teacher training and systematic support mechanisms for teachers', administrators' and facilitators' professional development that are in-line with the learning reform process. For details, see "Teacher Development for Quality Learning" report by Dr. Hitendra Pillay.
- 3) Information Technology for Education – an international consultant reviewed the present utilization of Information and Communication Technologies (ICT) in Thailand, and recommended establishing an ICT network to improve teacher education and to support learning reform efforts. For details, see "ICT for Direct Instruction & In-Service Training" report by Dr. John Stamper.
- 4) Education Improvement Model – four domestic Thai consultants developed an education model that incorporates the learner-centered approach, whole-school approach, school-based management, and authentic assessment. A pilot project focusing on capacity building for this model was implemented with 250 schools. This component is commonly referred to as the "ADB TA Pilot Project". For details, see "National Pilot Study: Learning Reform Schools for Developing Quality of Learners" report by Dr. Laeka Piya-Ajariya, et. al.

This report focuses on the basic education level, since provision of 12-years of quality and free education is a key challenge mandated by the 1997 Constitution and the NEA. Moreover, it is well-recognized that Thailand will have to improve the quantity and quality of its basic education to upgrade the livelihoods of the Thai people.

This report incorporates information from available documents and literature, both international and domestic sources. Primary information was gathered from in-depth interviews with key educators and site visits to pilot programs. The list of those who contributed to this report is shown in Appendix A. Additionally, numerous workshops were delivered by the domestic consultants with teachers, administrators,

and facilitators which provided valuable feedback and insight to the current understanding and challenges of learning reform.

1.3. Structure of the Report

This report aims at identifying best avenues for future ADB support for Thailand's on-going educational reform. The report is structured by addressing the following questions:

- Why is the educational reform needed from international and Thai perspectives? (Chapter 2)
- What is the framework and content of Thailand's educational reform? (Chapter 3)
- What is the progress to date? (Chapter 4)
- What are the lessons learned from pilot projects? (Chapter 5)
- What are the major issues that must be addressed? (Chapter 6)
- What types of support should the Thai government and the ADB consider? (Chapter 7)

Chapter 2 discusses the global and local contexts that necessitate the current educational reform in Thailand with particular emphasis on the need to develop human resources with higher-order thinking skills that can contribute to contemporary society. Starting with the revolutionary 1997 constitution and focusing on the NEA, Chapter 3 explains the legal framework and the components of the educational reform. Chapter 4 discusses the progress of educational reform in Thailand over the last three years. The lessons-learned from the implementation of pilot projects including the ADB TA Pilot Project are discussed in Chapter 5. The roles that NGOs can play in the reform are also presented. Chapter 6 discusses the major issues that need to be addressed for education reform to progress, such as finding the right mix of traditional and constructivist teaching methods for the learner-centered approach, approaches to professionalizing teachers, and assessing the teaching-learning process. Considering the key issues in learning reform, Chapter 7 provides recommendations for best avenues for future Thai government and ADB support, including deepening and expanding the ADB TA Pilot Project, providing capacity building and establishing systematic support mechanisms for teachers, administrators and facilitators, and establishing an ICT education network to support reform efforts.

Chapter 2 Need for Educational Reform

This chapter explains why educational reform is needed for Thailand and why it is needed now. The chapter begins by presenting the international context in which an emerging education paradigm promotes communication and thinking skills, participation, and decentralization that are needed in today's transforming economies. The elements for successful reform at the state, school, and classroom levels needed are presented. Subsequently, the Thai context begins with an overview of the Thai education system. Then, the prime motivating factors for the reform in Thailand, including declining international competitiveness, inefficient management and administration in education, inappropriate educational quality and inequality of access to educational services, are discussed.

2.1. International Context

2.1.1. Transformation from Industrial to Information Societies

As the new millennium begins, many societies are experiencing the transformation from "industrial societies" into "information societies". In industrial societies, manufacturing is the major industry and mass production at an acceptable level of quality and at a reasonable cost drives industrial production. The skills demanded of the mass labor force are generally limited to conducting tasks such as following manuals and assembling parts. However, in information societies, the search, selection, and application of information, and the creation and dissemination of knowledge, play critical roles in both individual and social development. In practice, emerging 2nd world economies such as Thailand have a mix of agricultural, labor and capital intensive manufacturing, and service industries. However, the trend towards becoming information-based societies is clear and necessary.

The traditional teacher-centered (i.e. "chalk and talk") might be sufficient for economies that compete largely through labor intensive manufacturing. However, in order to secure social equality and maintain competitiveness in a global market where high-tech value-added manufacturing and information-based ventures are demanded, education must go beyond the conventional teacher-centered approach. Education needs to be reorganized in order to better prepare our future generations for information societies.

2.1.2. The Emerging Education Paradigm

The emerging education paradigm expects students to be more active, inquisitive, and cooperative in learning. The role of the teacher is to guide students' independent learning, rather than to only initiate instruction in the classroom. School is integrated in society, and parents and communities are active in the learning process. Learning, analytical thinking, creative thinking and communication skills are given top priority

in the emerging education paradigm since these skills are becoming increasingly important in information societies. A comparison of the traditional and the emerging education paradigms is shown in the Table 1.

Table 1: Comparison of the Traditional and the Emerging Education Paradigm

Actor	Traditional Paradigm	Emerging Education Paradigm
School	<ul style="list-style-type: none"> • Isolated from society • Most information on school functioning confidential 	<ul style="list-style-type: none"> • Integrated in society • Information openly available
Teacher	<ul style="list-style-type: none"> • Initiator of instruction • Whole class teaching • Evaluate student • Places low emphasis on communication skills 	<ul style="list-style-type: none"> • Helps students find appropriate instructional path • Guide students' independent learning • Helps student to evaluate own progress • Places high emphasis on communication skills
Students	<ul style="list-style-type: none"> • Mostly passive • Learns mostly at schools • Hardly any teamwork • Takes questions from books or teachers • Learns answers to questions • Low interest in learning 	<ul style="list-style-type: none"> • More Active • Learns at school and outside school • Much teamwork • Asks questions • Find answers to questions • High interest
Parent	<ul style="list-style-type: none"> • Hardly actively involved in learning process • No steering of instruction • No life-long learning model 	<ul style="list-style-type: none"> • Very active in learning process • Co-steering • Parents provide model

Source: Pelgrum, WJ, ten Brummelhuis, ACA, Collis, BA, Plomp, Tj, Janssen Reinen, IAM (1997) The Application of Multimedia Technologies in Schools: technology assessment of multimedia systems for preprimary and primary schools, Luxembourg: European Parliament, Directorate General for Research.

2.1.3. Elements of Educational Reform

An important lesson from earlier international reform efforts is that change does not simply happen within a classroom. (U.S. Department of Education, 1993) The prevailing belief was that since the ultimate goal is to have a beneficial impact on learners, and what happens in the classroom is what impacts learners, the focus of change was in the classroom. This approach can work to some degree, particularly on a pilot scale. However, nation-wide reform in the classroom cannot happen unless the whole system, within which education takes place, changes.

Based on international experiences, the following elements are considered necessary for successful educational reform. The elements are categorized at the state, school and classroom levels. The agencies and individuals at each level have roles and responsibilities that directly and/or indirectly impact students' learning.

State Level

Decentralization: Decentralization, or delegation of authority from central administration to the local area and to educational institutions, is a critical element of reform. It gives local schools and communities flexibility in decision-making and allows for greater participation in order to meet the specific needs of the locality. In turn, local schools are accountable for their achievements. This mechanism empowers local people to be independent, analytical, creative and responsible, which is conducive to promoting the learning reform culture in school.

Leadership: The central government must support reform by exercising national leadership. Delegation of authority from the central government to the local area does not mean that the state is no longer responsible for education. The central government can support the reform by providing vision, articulating goals compatible with the reform, and providing incentives for change. The central government can also pool resources to achieve greater efficiencies in areas such as educational research. It also must ensure that quality standards for student achievement and the teaching profession are maintained nationally.

Assessment: Assessment compatible with the goals of reform must be established to support the reform. Many educators and policy makers believe that “what gets assessed is what gets taught” and that the format of assessment influences the format of instruction. (O’Day & Smith, 1993) Assessment systems that are consistent with the goals of the reform increase the likelihood that schools will try new approaches. The capacity to measure the results of efforts to improve higher-order thinking skills, instead of the present multiple-choice tests, is a necessary element for successful reform.

Resources: The central government must also provide resources to promote and support reform. Of course, provision of financial resources is necessary and well understood. Just as importantly, technical assistance, research and development, promotion, and capacity building for teachers and administrators are necessary. Time also needs to be allocated for teachers, so they can incorporate their newly-acquired knowledge and skills in their own teaching.

School Level

Clear Goals: A clear set of goals is a key element in any successful social organization, including schools. Research shows that identifying ambitious goals, then implementing those goals with broad consensus from essential stakeholders is the beginning of successful schools. (Bryk, Lee, and Holland 1993) Identifying schools goals and achieving consensus among school administrators, teachers, students, parents and the community can be a complicated and difficult process.

However, when goals become integral to every school activity and directly represented in the daily functioning of the school, they are most likely to be achieved.

School-based Management: An important element of new reform efforts is the decentralization of decision-making to the schools. In other words, management responsibilities must shift from central agencies to a school-based management approach. When decision-making power is given to schools, they are accountable for achieving outcomes. Principals, as institutional leaders need to be effective in motivating teachers, influencing their pedagogy, and managing the allocation of time and resources. Teachers also need to take a greater role in developing new curricula, evaluating practices, and developing their teaching skills. They are expected to take initiative to pursue the reform, rather than being passive.

School Leadership: In the process of achieving school goals, leadership of a competent individual or group of individuals plays an important role in providing direction, guidance, and support. A leader can provide focus on teaching and learning, motivation to work toward goals, and direct support for teachers. A school without leader can result in “a collection of independent classrooms with individual goals and unconnected beliefs about what is important and how to achieve it.” (U.S. Department of Education, 2000) Leadership is also necessary to implement the above-mentioned elements, including setting clear goals and implementing relevant school-based management.

Cultural Environment: Schools need to have an organizational culture that fosters a set of values, norms, and expectations that promote reform-oriented behavior among students. When schools’ cultural environment is conducive to the reform, they are most likely to achieve the goals. Elements of a schools cultural environment can be high expectations for students’ achievement, respect for individuals, positive disciplinary climate, a supportive teachers professional community, and a positive rapport among administrators, teachers and students. In order to change a school, a school’s culture needs to be changed.

Professionalization of Teachers: Teachers are the key players in learning reform. To implement reform, teachers are provided with increasing responsibilities for what and how to teach within their classrooms. Instead of drilling from textbooks, following curriculum, and telling students what they should know, teachers roles are to develop meaningful tasks for students, guide their learning through thinking processes, and help evaluate the students’ own progress. This new role calls for a much higher degree of skills for teachers, and professional development needs to be provided on continual basis, for both new and in-service teachers. Furthermore, when teachers form a professional community, their collective power and knowledge can be strengthened.

Classroom Level

Curriculum: Educational curriculum is a cornerstone to teaching. Curriculum reflects what students are expected to learn. Objectives and standards, as well as the amount of instruction time and coverage of the content, all relate to what is taught in

the classroom. If the course content is compatible with the goals of reform, successful achievement of learning reform is feasible.

Pedagogy: Pedagogy refers to how teachers approach curriculum, select instructional activities for students, and utilize their resources. Pedagogy is a concept that has received greater attention recently, as educators have realized its importance for student learning. Traditionally, policy makers and researchers looked at inputs (e.g. teachers, materials) and outputs (e.g. student examination scores). However, given the fact that similar inputs can produce different outputs, increasing interest is given to what happens “behind classroom door”. Pedagogy provides insight into the “black box” that exists between educational inputs and student outcomes. Understanding the changes in pedagogy that will accompany learning reform is a key element.

Technology: Technology is an increasingly important element in teaching and learning. For the last couple of decades, use of technology, especially computers and the Internet has exploded in many industrialized countries. The questions to be asked are: how widely are computers and the Internet access available, are the technologies being used, how are they being used and how do they affect students learning. The latter two questions are most relevant for reform. Teachers’ capacity to facilitate the use of the technologies will determine the success of integrating the technology in their teaching.

Class size: Research shows that a smaller class size helps promote students’ learning. (U.S. Department of Education, 2000) However, class size is related to cost and the optimal size is still controversial. In addition to the costs of compensating more teachers, adding more teachers without sufficient planning and training risks recruitment of unqualified teachers to meet the demand. The optimal size needs to be determined considering these risks.

External Players

Communities: The elements discussed above are the major elements of the reform within the educational system. In addition, within the context of educational reform, communities play an increasingly important role. Parents, businesses and community organizations’ roles are not limited to advocating the need for reform, but to actively participate in the learning and management processes. Communities need to be involved in planning and fostering the local schooling. Businesses are expected to provide donations as well as technical assistance, especially in the areas of technology and financial management. Of course, the link between schooling and economic development is largely dependent upon close collaboration between the private sector and the schools.

Teacher Education Institutions: Finally, and perhaps most importantly, teacher education institutions must prepare new teachers to contribute to the emerging education paradigm. Teachers’ capacity and skills are critical to the reform and the success that teacher training colleges and the universities have in preparing teachers will have a direct impact on teachers’ efforts at reform.

2.2 Thai Context

2.2.1. Overview of Thai Education System

The current educational administration and management in Thailand is under the mandate of three central government agencies: Office of the Prime Minister, Ministry of Education (MOE), and Ministry of University Affairs (MUA) as shown in Appendix B.¹ At the national level, the Office of National Education Commission (ONEC), in accordance with Office of the National Economic and Social Development Board (NESDB) and Budget Bureau, all under the Office of the Prime Minister, take charge of educational policy and planning. The MOE and the MUA are the major implementing organizations. They set their own policies in accord with national policy.

Regarding basic education, the MOE's Office of the National Primary Education Commission (ONPEC) is the major agency for primary schools (Grades 1-6). Other departments in the MOE provide specialized educational services. Approximately 12 percent of total student enrolment is in private schools, which are overseen by the Office of Private Education Commission (OPEC). Under the Ministry of Interior (MOI), the Bangkok Metropolitan Administration (BMA) runs its own municipal schools while the Border Patrol Police organizes primary schools in remote rural areas. A number of demonstration schools are hosted at various universities and the Rajabhat Institutes (RI). The host institutions provide oversight and technical assistance for the demonstration schools.

At the lower secondary level (Grades 7-9), the main providers of education are the MOE's Department of General Education (DGE) and the ONPEC, while private schools are under supervision of the OPEC. Primary schools under the ONPEC and MOI offer lower secondary classes in accordance with the government policy on the expansion of educational opportunities at lower secondary education level. Also, demonstration schools under various universities and RI are outside the control of the MOE.

At upper secondary level (Grades 10-12), the system is divided into two tracks: general and vocational. Public upper secondary education in the general track is primarily under the responsibility of the DGE. The rest are either under the OPEC or demonstration schools under the universities and the RI. The other stream of upper secondary level is the vocational track, in which education is delivered by the MOE's Department of Vocational Education (DOVE), the Department of Fine Arts (DFA), and the Rajamangala Institutes of Technology (RIT). Furthermore, upper secondary education in both general and vocational tracks is provided by other ministries in areas within their expertise.

¹ Ministry of Interior, Ministry of Labor and Social Welfare, Ministry of Agriculture and Cooperatives, Ministry of Transport and Communications, Ministry of Defense, Ministry of Public Health, Ministry of Science, Technology and Environment, and Ministry of Justice provide education for specific purposes. Also, Bangkok Metropolitan Administration and municipalities provide additional education within their jurisdictions.

Higher education is primarily under the responsibility of the MOE and the MUA. The MOE provides diploma and undergraduate degrees at RI, RIT, public and private vocational colleges, and at colleges of physical education, dramatic arts and fine arts. The major role of the MUA is to supervise and coordinate public and private higher education institutions. However, some specialized professional training such as nursing and meteorological studies fall under the jurisdiction of other ministries. MUA's major responsibilities are the allocation of resources and the formulation of educational policy within the framework of the National Education Development Plan and the standardization of curricula. Responsible bodies for various levels of educational institutions are shown in Appendix C.

Thailand's education system is relatively successful in terms of quantity of students reached. The total student enrolment in formal education gradually increased from 13.8 million in 1998 to 14.0 million in 2001. Primary school enrollment is almost universal and the literacy rate has reached 95%. Although there is still a need for improvement, secondary school enrollment has also increased significantly, reaching 70.9% in 2001. (ONEC, 2001b)² In terms of quantitative development, efforts have been made to provide greater educational opportunities at all levels of education. Thailand, however, still faces a number of tough challenges, which are discussed in the following sections.

2.2.2. Decline of Economic Competitiveness and Social Climate

A strong factor stimulating the educational reform is a decline in Thailand's economic competitiveness. In 2000, Thailand was ranked 40th out of 58 countries, one rank lower than the previous year. (World Economic Forum, 2000) Thailand's rapid economic development since the early 1980s, can be largely attributed to exporting labor intensive manufacturing products based on a comparatively inexpensive cost of labor. However, competitors like China, India and Vietnam have emerged with cheaper labor costs and Thailand lost its comparative edge. The 1997 economic crisis, which can be partially attributed to a loss in export competitiveness, highlighted Thailand's need for improving the capabilities of its human resources in order to produce higher value-added products and services.

On "innovation", Thailand ranked 50th according to the Global Competitiveness Report 2000. Singapore at 14, Malaysia at 30, and the Philippines at 47, all were ranked higher. The key factor inputs that support innovation include: "high-quality human resources, especially in science and technology; frontier research programs relevant to industry issues; and, an effective system for communicating best practices and transferring knowledge." (World Economic Forum, 2000) Yet this is precisely where Thailand failed to make substantial improvements despite the rapid economic growth of the 1980s and mid-1990s.

² In spite of this quantitative expansion, the majority of Thais over the age of 15 have completed primary education or less. Furthermore, about 30% of 12-17 year olds still have no chance to participate in secondary education. At upper secondary level, only half of the age group has access to education.

Referring to Table 2, Thailand has experienced significant declines in its global rankings on technology, management, and labor areas from 1996 to 1999. The steady decline indicates the need to devote more resources to improving high-level technical and managerial manpower and also the need to improve the efficiency with which such resources are applied and developed.

Table 2: Area Competitiveness Ranking: Thailand

	1996	1997	1998	1999
Technology	25	40	35	44
Management	20	34	35	40
Labor	14	24	28	48

Source: World Economic Forum. "Global Competitiveness Reports"

A recent analysis of the progress of Thailand's economic recovery concluded:

"While overall productivity growth was moderate, most of it was in agriculture or arose from inter-industry shifts. There was little indication of growth of technological capabilities, or movements 'up the ladder of comparative advantage'. Among the widely recognised barriers to growth in competitiveness were very low levels and quality of education, serious deficiencies in infrastructure development, and a policy regime at the microeconomic level which was much too geared to creating and preserving rents than fostering market competition."(Flatters, 1999)

The crisis has revealed Thailand's glaring deficiencies in research and development, science and technology, and in its overall education system. Thailand is now challenged to achieve a competitive edge, and appropriate, quality education is necessary to develop the human resources needed to improve competitiveness in a global market.

As equally as important as economic competitiveness, many Thais are concerned with the decline of social climate. Social climate is not as clearly defined as economic competitiveness and accordingly, it is difficult to measure and relevant statistics are not collected regularly in a reliable manner. However, some indicators present the worrying social trends and anecdotal evidence is frequently cited. While economic growth coincides with rapid industrialization, urbanization and growth in consumption, the effects on social climate are not necessarily positive. For example, over the last decade, there are increases in arrests for drug related crimes, especially amphetamines, the number of children under the age of 14 using drugs, property crimes, number of suicides, and the number of outpatient visits for depression. (The World Bank, 2000) Although the causes of these trends are attributed to multiple factors, many key educators are concerned that education may be neglecting to

consider how to build a healthy social climate, while the greatest emphasis is on the pursuit of economic competitiveness. (ONEC, 2000c)

In Thailand, a healthy social climate is closely related to family and community cohesion. In fact, during midst of the 1997 economic crisis, while some social indicators show negative trends, community level indicators present positive trends such as increasing participation in savings groups and increasing membership in sub-district youth center. (The World Bank, 2000) The role of family and community proves to be significant for a healthy social climate and education involving family and community is called for. Education's role in supporting the development of the social climate will be increasingly important as urbanization continues to strain the traditional social support networks.

2.2.3. Management and Administration Inefficiencies

Although the Thai government has committed significant resources, the system and procedures to utilize the resources most efficiently for the purpose of educational reform are inadequate. The Thai government has been providing the largest share of total public expenditure to the education sector since 1991. Even after the onset of the 1997 economic crisis, the government provided 25% of total expenditures for education, which was a greater portion than even before, demonstrating the government's commitment to education for the nation's recovery and development.³

The significant education budget, which is in fact the second highest percentage in the IIMD's international survey of 49 countries, is not spent prudently. Twenty-three per cent of the budget is spent on new buildings and land, 66% on teachers' salaries, and only a meager 0.79% is spent on improving the quality of teachers. (Bangkok Post, 1/8/01)

The current management and administrative system is inadequate to support educational reform. The current system is comprised of a maze of ministries and departments with overlapping responsibilities as presented in section 2.2.1, causing very high inefficiencies and high administrative costs. Three major ministries are involved in education and more than 14 departments are overseeing various levels of education. Insufficient coordination across ministries and departments further delays reform and prevents cost-efficient resource utilization.

Furthermore, the bureaucratic system is highly centralized, which is ineffective and inefficient, especially in the areas of budget and personnel management. The line-itemized budget system does not allow for flexible utilization, hence resulting in execution delays, inefficiencies and less than optimal resource allocation. Finally, the centralized management and personnel allocation system does not allow each school to be accountable for what they teach. (Fry, 1999)

³ Despite the government's high education investment, annual expenditure of US\$114.6 per head is still lower than many countries; eleven, six and three times lower than that of Japan, Singapore and South Korea, respectively. (The Nation 6/7/00)

2.2.4. Quality of Education

The top goal of Thailand's educational reform is to improve the quality of education. The prevailing practice of teaching, teachers lecturing to submissive students, is most prevalent at the secondary education level, especially at the upper secondary level in which teaching focuses on students preparing to take the nationally administered University Entrance Examination. The examination focuses on reproducing the subject matter, and accordingly, leads to the practice of rote memorization. Furthermore, schools are isolated from families and communities and the learning process is not imbedded in the Thai society. (ONEC, 2000c and Bangkok Post 7/15/01)

According to the latest survey by the International Institute for Management Development (IIMD), Thailand ranked 44th in educational capability and 38th in terms of academic competitiveness out of 49 countries. (ONEC, 2001a) It lagged behind neighboring countries including Malaysia, Philippine, and Singapore.

In 1999, the Department of Curriculum and Instruction Development (DCID) conducted a national quality assessment of education at the upper secondary level (Grade 12). The evaluation showed that while many of upper secondary schools in Thailand provided favorable educational services, they still needed to improve teaching and learning in accordance with the curriculum and the needs of learners and localities. Although most school administrators and teachers were rated as having "good" qualifications and work ethics, about half of the teachers needed to improve their abilities to facilitate aspects of student-centered learning, and to search for knowledge, think analytically, conduct research, and create a body of knowledge. (ONEC, 2001b, pp.55-57) In terms of academic achievement, while about 90% of students showed satisfactory results in Thai writing, many of them needed to improve their skills in chemistry, mathematics and English writing, 64%, 65% and 86%, respectively. (MOE, 1999, p.23)

The Thai government identified quality improvements in teaching science, mathematics, and English as priorities in the 1998 SSP policy matrix. Science and mathematics skills are basic necessities to advance in high-technology and information-based industries. However, the quality of teaching in these subjects is inadequate, and consequently, Thai students do not excel internationally. The Third International Mathematics and Science Study (TIMSS) conducted by the International Association for the Evaluation of Educational Achievement (IEA) shows that the performance of Thai students was lower than many countries such as Australia, Austria, Hungary, Ireland, as well as some countries in Asia including Singapore, Japan, Korea and Hong Kong. (ONEC, 1999) Furthermore, according to research funded by the National Electronics and Computer Technology Center (NECTEC), Thailand's IT graduates do not meet the quality expected by the market and they lack necessary skills. (Bangkok Post, 12/18/01 and 12/19/01) English is increasingly becoming important, not just as a foreign language, but as an international language. In promoting technology in education, many educational officials pointed out that "English is a barrier" for Thais. Since over 85% of global Internet content is in

English, inadequate language proficiency limits the benefits of Internet. The English capabilities of Thais significantly lag behind their neighbors in the Philippines, Malaysia, and Singapore.

Despite increasing demand for science, mathematics, and English, a lack of teachers who can provide quality teaching for these subjects is a serious problem.⁴ According to a 1998 survey by the Office of the Teacher Civil Service Commission (OTCSC), approximately 30,000 additional science teachers, 20,000 mathematics teachers, and more than 70,000 language teachers are needed to provide a sufficient amount of education for these subjects. Subsequently, the ADB TA pointed out the shortcomings in teaching in science, mathematics, and English. (Fry, 1999) The major findings were the lack of quality teachers in the subjects, and the lack of quality teaching materials, especially inadequate utilization of modern language learning equipment such as computers, videos, and software in English. Over-emphasis on the university entrance examination and continued over-reliance on the grammar-translation method are also highlighted.

2.2.5. Equity of Access

Equity of access to quality education, particularly access for provincial and low-income populations to educational services and infrastructure, is another serious challenge in Thailand. Rural schools are less equipped and have fewer well-qualified teachers compared to schools in urban areas. Graduates of rural schools, that continue their education, are more likely to enter the vocational stream at the upper secondary level and are less likely to proceed to higher education. Urban children have access to better quality schools with more opportunities to continue to post-secondary education. The majority of higher educational institutions are situated in urban areas. Enrolment rates at all levels of education reflect disparities in access to educational services. The lowest enrolment rates are in Northeast Thailand, the poorest region in the country. (ONEC, 1999)

When comparing academic achievements by regions, inequality existed in all subjects. The highest average scores in nearly all subjects were found in Bangkok. The lowest scores in mathematics, chemistry and physics were found in the poorest areas in the country. (ONEC, 2001b)

⁴ According to the TIMSS, when comparing instruction time for mathematics and science, Thai students of age 12-14 are receiving significantly less instruction than their contemporaries in other countries: Thai students receive 167 hours instruction in mathematics and science, in comparison to 325 hours in Austria, 251 hours in Australia, and 204 hours in South Korea.

Chapter 3 Thailand's Educational Reform

This chapter introduces Thailand's educational reform, starting with the major plans, policies, and legislation that provide framework for the reform. The first section includes a discussion of the development of educational reform policy based on the national economic and social development plan, the 1997 Constitution and the National Education Act (NEA). Then, the role of the Office of Educational Reform in promoting the reform is discussed. The last section presents each of the key elements outlined in the NEA including: 1) Ensuring basic education for all; 2) Reform of the education system; 3) Learning reform; 4) Reorganization of administrative system; 5) Introducing a system of educational quality assurance; 6) Enhancing professionalism and the quality of teaching profession; 7) Mobilization of resources and investment for education; and, 8) Technologies for educational reform.

3.1. National Policy and Legal Framework

The Thai government has adopted the principle that "education builds the nation" and a number of important policy documents shape the current educational reform movement. To start, the Eighth National Economic and Social Development Plan (1997-2001) changed its emphasis from promoting economic development through increasing industrial capacity and export growth to economic and social development through human resource development and improvement in the quality of life. The policy aims "to develop quality and capable Thais who can initiate ideas and be creative. This will develop the capability of community, society and finally the nation." (NESDB) Two new key strategies of the Eighth Plan were to build stronger relationships between the government and the people through cooperation and participation, and to reorganize the management system in order to implement the plans effectively. In fact, this novel approach is not limited to this five-year national plan, but also applies to national development aimed at achieving the long-term vision of an ideal Thai society.

The most important foundation for the current reform is the 1997 Constitution. The development and passing of this constitution was a revolutionary achievement in Thailand. After being governed by 15 constitutions developed by dictators, authoritarian regimes, the military and political parties since the establishment of Thailand as a constitutional monarchy in 1932, this constitution was developed through democratic processes in which all segments of the society participated. Throughout the 1997 Constitution, "participation" is the key concept that runs throughout its Articles. (Anand, 2001)

The 1997 Constitution states that education is a major tool for developing the Thai people, protecting one's rights, and establishing equity. Section 81 specifically refers to educational reform. It requires that the state:

“Provide education to attain knowledge and morality; issue laws relating to national education; improve education so as to be attuned to economic and social change; create and strengthen knowledge and inculcate sound awareness of politics and a democratic system of government under a constitutional monarchy; promote research in various disciplines; accelerate the application of science and technology for national development; promote the teaching profession; and encourage the revival of local wisdom, art and culture of the nation.”

With the objective of transforming Thai society into a “learning society,” the 1997 Constitution includes the following provisions that aim to empower Thais with the freedom to pursue life-long learning and to provide greater access to education through formal, non-formal and informal education channels:

- Every citizen will have equal opportunity to receive 12-years of quality basic education, free of charge (Section 43).
- All Thais will have both the right and duty to receive education and training (Sections 30 and 69).
- All children, youth, women, the elderly, the under-privileged and the handicapped have the right to receive care and education (Sections 53, 55 and 80).
- National communication resources will be applied to benefit all (Section 40).
- The conservation and restoration of local wisdom will be pursued (Section 46).
- Academic freedom is guaranteed (Section 42).
- The role of the private sector in the provision of education at all levels is promoted (Section 43).
- The right of local organizations to participate in the provision of education, which will facilitate decentralization of educational management, is ensured (Section 289).

3.2. Enactment of the 1999 National Education Act

Enactment of the 1999 National Education Act (NEA) was a major step towards realizing educational reform in Thailand. Subsequent to the promulgation of the new Constitution in October 1997, the NEA was developed based on extensive research on 42 major issues, scrutiny by education specialists and economic, social and legal affairs experts, input from eight public hearings, and public polls surveying over 100,000 people. The principle of “participation” was followed in developing the NEA. The public was given significant opportunity to offer their opinions, and feedback. “Participation was nearly as great as during the drafting of the 1997 Constitution.” (ONEC, 1999)

As stipulated in Section 81 of the 1997 Constitution, the NEA serves as the master legislation for educational reform in Thailand.⁵ The major components of the NEA include:

1. Learning Reform: promotes and develops the importance of the learner-centered teaching process, allowing learners to develop learning and thinking skills, with consideration for individuals' interests, aptitudes, pace and potential.
2. Reform of Educational Administrative Structure: develops the teaching profession through reorganizing systems for teachers, faculty, staff and educational personnel, and for efficient utilization of resources and investment for education.
3. Legal Measures: a number of legislative actions and implementing regulations need to be prepared and/or amended, particularly in regards to structural changes.

The NEA represents a national commitment to launch a serious, innovative educational reform. Learning reform is at the heart of the educational reform. Administrative structural reform indirectly and directly supports learning reform. Legal measures should be taken to consolidate such reform so that the policy is not considered optional, as in the past.

The ultimate aim of the learning reform is “a quality improvement of the Thai people for sustainable development of the country.” (ONEC, 2000c) The desirable characteristics to be developed in Thais include physical and mental health, intellect, knowledge, morality, integrity, and a harmonious life style.

Educational provision underlying reform is based on three principles:

1. Lifelong education for all;
2. Participation by all segments of society; and,
3. Continuous development of the bodies of knowledge and learning processes.

3.3. OER's Roles

The Office of Educational Reform (OER) was established to propose approaches to streamline educational administration and management in support of educational reform. The current educational administration and management includes overlapping jurisdictions and redundancy as discussed in section 2.2.3. It is imperative that detailed roles, responsibilities and reporting obligations of each organization support the implementation of the NEA, so that all stakeholders have a common understanding of what they are achieving. It would be very useful to

⁵ The full text of the NEA is shown in Appendix D.

develop a Manual of Policy and Procedures, to detail the roles and responsibilities of central and local agencies, schools, teachers, and administrators.⁶

In order to implement the educational reform in accord with the NEA, the OER was established as a temporary public organization in January 2000, for a duration of 3 years. The OER's major roles are:

1. Propose the structures, organizations and division of responsibilities for educational administration and management;
2. Propose systems for organizing, training and supporting teachers and educational administrators;
3. Propose plans for mobilization of educational resources and investment;
4. Submit proposals to the Council of Ministers regarding the required bills to implement numbers 1, 2, and 3 above; and,
5. Submit to the Council of Ministers proposals regarding amendments to legislation, rules, regulations, statutes and orders in force to meet the requirements in numbers 1, 2, and 3 above.

The OER submitted its final proposal addressing the above components in April 2001. Simultaneously, the existing education-related agencies wrote their own proposals, which present different approaches. As the OER's term is coming to end in January 2003, it is important to arrive at a consensus.

3.4. Components of Educational Reform

According to the NEA, educational reform consists of eight components:

1. Ensuring basic education for all (Chapter 2);
2. Reform of the education system (Chapter 3);
3. Learning reform (Chapter 4);
4. Reorganization of administrative system (Chapter 5);
5. Introducing a system of educational quality assurance (Chapter 6);
6. Enhancing professionalism and the quality of teaching profession (Chapter 7);
7. Mobilization of resources and investment for education (Chapter 8); and,
8. Technologies for educational reform (Chapter 9).⁷

Although the components are listed separately, many of the objectives are interdependent. For example, the provision of quality, basic education for all will require learning reform to improve the quality of teaching, enhancing the professionalization and the quality of teachers, and the mobilization of resources. As mentioned above, learning reform is considered the core of the educational reform and the other components are to support the learning reform. The legislation is broad, but key points of each component are summarized as follows.

⁶ For more details, see Dr. Pillay's report on teacher development under this TA.

⁷ Corresponding chapters in the NEA are in parenthesis. Note that there are 9 chapters in the NEA. Chapter 1 is "General Provisions: Objectives and Principles."

3.4.1. Ensuring Basic Education for All

All individuals must have equal rights and opportunities to receive twelve years of basic education and such education shall be of “quality” and “free of charge.” The NEA also refers to education for those with special needs (e.g. disabled, disadvantaged, and gifted) and recognizes alternative education delivery options (e.g. home-schooling). Those who support or provide basic education will be entitled to benefits and tax rebates or exemptions for educational expenditures.

Provision of twelve years of free, quality education is a massive task to achieve. Currently the Thai government provides 6 years compulsory education for free. Raising the “quality” of education on a nationwide-basis is necessary but will require a serious commitment and significant resources over a sustained period. Furthermore, doubling the duration of free education to twelve years, requires a significant financial responsibility for the government.⁸ As of March 1, 2002, the Thai government estimated that an additional 19 billion baht was needed for one-academic year to cover 12-years of free education, which is equivalent of 15% of the total education budget for year 2002. However, the definition of “free of charge” is still controversial. The Thai government’s calculation on resources needed have been simplistic based on cost per head for each educational level, but details such as how to treat the disabled, the disadvantaged, and the gifted, and how to compensate private schools and alternative education, have not been taken in account. (Bangkok Post, 3/1/02)

3.4.2. Reform of Education System

The educational system will consist of three types of education: formal, non-formal, and informal education. Formal education refers to education provided in the national school system, which is divided into 2 levels: basic education (years 1-12) and higher education (degree programs). Non-formal education are for those receiving education outside the school system including the early childhood population, school-age population who have missed formal schooling and over-school-age population. Informal educational activities are available for self-learning through various sources of training, both public and private.

The three types of education noted in the NEA are consistent with the current system, but what is notable is the promotion of flexibility and cooperation among and between the types of education. The NEA mandates that credits earned at any level and type of institutions should be transferable to other institutions. In so doing, quality standards for and coordination between all levels and types of institutions must be established.

⁸ Note that compulsory education is defined for 9 years in the NEA. In other words, all Thais are required by law to attend 9 years of education and if they wish, they can continue another 3 years for free.

3.4.3. Learning Reform

Learning reform is the core of the educational reform. The NEA emphasizes lifelong learning with a balanced orientation of knowledge, skills and attitudes. Knowledge includes technical and scientific knowledge, socio-cultural knowledge and knowledge of ones self. Thinking processes such as analytical thinking, creative-thinking, and problem solving, and moral values are to be developed proportionately. Furthermore, assessment appropriate for evaluating such development will be needed.

In the teaching-learning process, all learners are to be considered “capable of learning and self-development, and are regarded as being most important.” The “learner-centered approach” is focal to meeting the principles of learning reform. In this approach, education should be provided while taking into considering individual learners’ interests, aptitudes, pace, and potential.

The NEA prescribes the decentralization of curriculum development for the first time in Thai education. The state, through the new ministry of education, will provide the framework for the “core curriculum”. The framework will include objectives, standards, and assessment and evaluation methods of teaching and learning. Then each institution will be responsible for delivering curricular substance reflecting the needs of local communities and the society. Such “local curriculum” must aim for human development with a balance of acquiring knowledge, critical thinking, practical tools, virtue and social responsibility.

3.4.4. Reorganization of Administrative Structure

Consolidation of Central Administration Bodies: The NEA states that the agencies whose main focus is education, mainly the Office of National Education Commission, the Ministry of Education, and the Ministry of University Affairs, shall be merged into one entity, tentatively called “the Ministry of Education, Religion, and Culture (MERC)” by August 2002. Also, more than 20 separate bodies for the central administration of education, religion and culture will be reorganized into four main units, namely National Council of Education, Religion and Culture; Commission of Basic Education, Commission of Higher Education, and Commission of Religion and Culture. The National Council of Education, Religion and Culture will be responsible for national policies and plans for education. Three new commissions will be in charge of education for preschool to year 12, higher education, and culture and religion. The commissions are to be comprised of ex-officio members from central government agencies including MERC, local government administrators, scholars and representatives of professional organizations.⁹

Decentralization of Authority: Public education will be administered at three levels: national, local and institutional. At the national level, the newly establishing MERC will oversee all levels and types of education, religion, art and culture. To oversee the “Local Education Service Areas (LEA)”, an Area Committee for Education, Religion and Culture (ACERC) will be formed consisting of representatives of the community,

⁹ Refer to the planned organizational structure in Appendix E.

private sector, local administrative organizations, association of teachers, educational administrators, parents, religious leaders and scholars. The committees will oversee both public and private institutions for basic education and degrees lower than the Bachelors level. At each educational institution, there will be a board supervising the management of the institution. The ACERC and the educational institutions are to be authorized to make decisions on educational administration including academic matters, budget, personnel and general affairs administration. However, the delineation of the roles is not clearly described in the NEA. Furthermore, the NEA states that the state universities shall become separate legal autonomous entities supervised by university councils.

A key goal of reorganizing the administrative structure is to decentralize decision-making authority, promote efficiency and effectiveness of the education system. In other words, the structure must support the efforts to improve the quality of education and respond to the diverse and changing needs of the economy and society. Furthermore, decentralization is intended to strengthen democracy, by empowering the local communities to participate in the management of local educational institutions and activities.

3.4.5. Introducing a System of Educational Quality Assurance

Improving quality is a prime goal of the educational reform. In order to ensure the improvement of educational quality and standards at all levels, a system of educational quality assurance will be established as a part of the educational administration. Quality assurance will be done by internal and external evaluation. All educational institutions must establish procedures and criteria for internal quality assurance. For external evaluation, the Office for National Education Standards and Quality Assessment (ONES) has been established as an independent agency. ONES will be responsible for evaluation of both basic and higher education. All educational institutions will undergo external quality evaluation at least once every five years.

Traditionally, Thailand's quality assurance has focused on quantitative inputs such as the number of books in the library and the physical space per student. However, the NEA prescribes a significant shift of focus to educational performance and results. This performance-based quality assurance system is new to Thailand. ONES was established in November 2000, and implementation is scheduled to begin in the 2002-3 academic year.

3.4.6. Enhancing Professionalism and the Quality of Teaching Profession

The NEA requires the establishment of the Organization for Teachers and Educational Administrators (OTEA). OTEA is to be an independent body with the powers and duties to set standards, issue and withdraw licenses, oversee the maintenance of standards and ethics, and develop the profession. Teachers and educational administrators of both public and private institutions (except institutions of higher education and informal education) will be required to have professional licenses. A

fund will be established to help raise the professional standards through grants and rewards for innovation and excellence in teaching and researching.

The teachers and educational personnel in public institutions will remain civil servants under the jurisdiction of a central teacher civil service organization, but the ACERC will be responsible for administration of personnel affairs. Furthermore, legislation on remuneration and welfare for teachers and educational personnel needs to be passed to ensure that compensation is sufficient considering teachers' social and professional status.

3.4.7. Mobilization of Resources and Investment for Education

The NEA states the importance of mobilizing resources and investment for education from various sources, the private sector in particular, in addition to state funds. The government's responsibility is to distribute subsidies for basic education "on an equal basis." The state funds will be delivered through block grants, instead of the present line-item budgeting system. Furthermore, a system for managing, monitoring, auditing, and evaluating the utilization of budget will be established. In addition, the government and ACERCs are authorized to levy educational taxes and to provide incentives such as tax rebates or exemptions for non-public contributions. Educational institutions can also generate income to use for educational purposes.

While the NEA provides more freedom and flexibility for financing of education at the local and institutional levels, new financial management skills are required. Most local educational administrators, particularly in rural areas, do not have sufficient capabilities to assume greater financial responsibility. Accordingly, a substantial amount of training will be needed. A potential source of financial management assistance may be tapped from representatives of the private sector who have relevant experience. This may be done through the ACERCs.

3.4.8. Technologies for Educational Reform

Thailand has been promoting technologies for education over the last decade through important policy mandates and legislation. The 8th and 9th national social and economic development plans place strong emphasis on human resource development and promotion of technology. In line with the national plans, the National Information Technology Committee developed the "IT 2000" policy which promotes the use of information technology for national development.¹⁰

¹⁰ The policy is based on the premise that Information Technologies (IT) is not only an instrument for enhancing competitiveness in business, industry, and international trade, but also for social development such as enhancing democratic principles, wealth distribution, education and healthcare. "IT2000" states that if wisely utilized, IT can become an invaluable tool for:

- more equitable spread of wealth and opportunities for rural inhabitants;
- promotion of national culture, social harmony, and democracy;
- reversing labor migration, and reducing traffic and pollution in major urban centers;
- opportunities for personal development, healthcare and other public services; and,

Article 78 of the Constitution (1997) mandates that “the government must establish information infrastructure throughout the country.” The NEA states that the Thai government shall provide the communications infrastructure for the purpose of enhancing educational attainment, and promoting religion, art and culture. A central unit will be established and be responsible for proposing policies and plans, promotion and coordination of research, and development and utilization of technologies for education.

The Technology for Educational Development Fund will be established from government subsidies, profits of state enterprises, and communications concession fees. The Fund will be used for research and development, and the production of educational technologies and software.

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- conservation of natural resources and environment in supporting the development of the country into a regional hub for finance, manufacturing, trades, transportation, and tourism.

Chapter 4 Progress of Educational Reform

This chapter discusses the progress of educational reform through March 2002. First, the progress of educational reform policy making over the last three years (1999-2002) is discussed. The conclusion is that while significant progress has been made, particularly in learning reform, Thailand's educational reform progress is still at the policy formation stage. Discussion follows on the success of awareness building for teachers, educational administrators, and the public. Then, the progress of reform efforts for learning reform, administration, legal amendments, resource investment, and the use of technology is discussed. The discussion then turns to the slowing of the policy making process in 2001, due to differences among government agencies, politicians, educators and the public. Finally, the resulting uncertainty, due to an unclear government policy, of teachers, administrators and the public is discussed.

4.1. Progress of Educational Reform Policy Making

The progress of Thailand's educational reform can be reviewed within the context of the process of public policy making, which can be defined as a sequential cycle which involves agenda setting, policy formation, implementation, evaluation, and termination. (Palumbo, 1988)¹¹ In reality, the stages of this process often overlap and intermingle. However, for the most part, policy making is a cyclical process, and this model is helpful to understand Thailand's progress on educational reform.

Thailand's progress in the educational reform is, in general, at policy formation phase. Education reform is clearly on the national agenda as evidenced by the legislative acts and policy documents mentioned in Chapter 3, sections 3.1 and 3.2. At the policy formation stage, the problems in education are defined and generally agreed upon largely through awareness building and discussion. Significant amounts of research have been conducted and numerous approaches are proposed. Moreover, proponents and opponents to reform, including education related agencies, politicians, and civil society, have intensively discussed and debated the proposals for the reform. In regards to implementation, a number of pilot projects are testing and refining approaches to learning reform, ICT use, and decentralized management. Before full-scale implementation can begin, the Thai government must finalize the organizational structure and the roles of each related agency. The evaluation stage is vitally important in initiating such a sweeping reform. To date, the mechanisms are not well-

¹¹ Each stage is explained as follows: 1) Agenda setting: Issues become a part of the public agenda by being considered by a legislature, administrative agency, or court; 2) Policy Formation: The problem is defined, interests are aggregated in support or opposition to it, and a particular approach to solving the problem is adopted; 3) Implementation: The action or decision is given to an administrative agency to be implemented; 4) Evaluation: The impact of the policy and the processes by which it is being implemented are evaluated; and 5) Termination: The policy may be terminated because of loss of support, because it is not achieving its goals, or because it costs too much.

defined and organized, although the ONES is to play a major role in the evaluation process.

The major obstacle to the reform process is that the approaches for implementation have not reached a national consensus. The OER submitted a proposal on educational reform, including draft bills, necessary for implementation in April, 2001. However, none of the bills have been approved by the cabinet as of March 2002. The NEA set three years as a preparation period and the new education system is scheduled to be launched on August 20, 2002. Facing the coming due date, many doubt the possibility of full agreement on time. At the very least, it is likely that the date will be moved to October 1, 2002, the target date for the government to launch a new ministerial system in which nearly all ministries are to be restructured and new ministries are to be established.

4.2. Awareness Building Successful

Over the last three years (1999-2002), the Thai government has successfully raised awareness of the need for educational reform. Education related agencies have held a number of conferences and workshops to promote the concept of the reform. Media, newspapers in particular, have regularly reported on educational reform news and events. Several education officials who work with teachers stated that teachers knew “the change was coming” in the interviews conducted. Awareness was raised not only for educators, but for the general public as well. According to a survey by Assumption University, among 1,267 residents, aged 18 and above, polled in October 2001, more than 90% said that the change was necessary, and almost 90% followed news about the changes. (Bangkok Post, 11/3/01) During a school visit to a remote area in Chiang Rai, one student commented, “when we started going to the field to learn with the community, my father said ‘what are you doing, playing around in the field?’ But after learning about the educational reform from the TV and radio, he doesn’t ask the question anymore.”

Awareness building is often necessary to put an issue on the national agenda and form policy. It also is an important aspect for policy implementation. If key players and interest groups are not aware of the need for reform in the first place, the subsequent reform process will not follow. In this sense, the Thai government has accomplished a significant first step towards educational reform.

4.3. Progress of Reform Efforts

From August 1999 to March 2002, education reform has been promoted by the central agencies through the following policy formation and implementation strategies:

- Knowledge building: a large amount of research was conducted as the basis for policymaking, planning, and drafting relevant laws.
- Broad consultation: implementation approach options developed by consultations among leading scholars, specialists, practitioners and the general public, through seminars and public hearings.

- Developing Agents of Change: best practices are encouraged through the following awards: National Teachers, Master Teachers, Model Principals, Model Schools, Model School Boards and Model Local Administration Organizations.
- Developing Education Reform Network: people from all sectors of society are invited to be members of the network to attend and organize workshops and seminars.
- Evaluation: the outcomes and progress of the initial activities are regularly evaluated by external organizations.

One year after the enactment of the NEA (August 2000), the results of an evaluation undertaken by a team of researchers from Chulalongkorn University were generally favorable. Seventy-six percent of the tasks targeted by the NEA for 1999-2000 were completed. (ONEC, 2000b)¹² For learning reform, attention was given to promoting the learner-centered approach, including developing individual assessment and internal evaluation methods. Significant progress was made on producing guidelines and materials. The evaluation concluded that learning reform made fair progress at the policy level, but more support was needed at the operational level.

Regarding administration and legal amendments, Year 1 was spent promoting awareness and conducting preparatory research work for structural changes. Since policies mandated by the NEA do not specify the regulations and operational details, preparatory research began, but was not completed for each component. Although resource investment and technology for education performed significantly lower than targeted, 33% and 38%, respectively, overall, the first year showed promising progress.

Two years after the enactment of the NEA (August 2001), the same team conducted another evaluation with input from experts from various education-related agencies. (ONEC, 2001c) The team evaluated the progress of learning reform as “impressive” for the second year. At both the policy and implementation levels, significant work was completed, including:

- The Master Teacher project, awarded for excellence in teaching, was launched, and 326 teachers earned the title of “Master Teacher”;
- Pilot projects were initiated, including the ADB-financed 250 pilot school project on learning reform;
- DICD revised the core curriculum for the basic education level and developed an operation plan for piloting the curriculum;
- Research on new concepts such as sources for lifelong learning, and authentic assessment and evaluation were conducted;
- Training was provided to teachers and administrators; and,

¹²The evaluation was conducted through interviews with 97 participants, surveys for both educators (395 school administrators, 1,912 teachers, and 313 lecturers) and the general public (1,862), and documentary sources.

- DGE and ONPEC, OPEC, DNFE, BMA and municipalities conducted internal quality assurance review (100% of the DGE's operations were reviewed, 67% for ONPEC, 200 OPEC schools, 12 DNFE centers, 100% for BMA, and 90% for other municipalities).

The second year, 2000-2001 also marked the point that the lack of coordination among ministries and departments, became an obstacle to reform. The evaluation team stated that, in spite of the significant amount of work undertaken, there was poor cooperation among agencies, and accordingly, there were not apparent "concrete outcomes." (ONEC, 2001c, p.27)

Regarding educational administration and management, the OER submitted proposals for the new structure and administration of MERC in year two. However, there are differences in views between OER and MOE, especially in regards to the treatment of the physical education department, DOVE, and the religious affairs department. (ONEC, 2001c)

The OER also drafted a series of laws and ministerial regulations concerning educational reform. However, it took much longer than planned to go through the legal affairs process. For example, ministerial regulations on the types and levels of basic education and non-formal education were scheduled to be completed within a year, but it took two years to pass the Council of State. The vocational bill was delayed partly because the three related agencies (OER, ONEC and DOVE) wrote their own versions, and it was time consuming to integrate all of them. (ONEC, 2001c)

4.4. Policy Making Process Slowed

Facing the due date for completing the transitory period in August 2002, there is some concern and frustration over the delay in the reform process. At the same time, the relevant government agencies are taking steps to address the roots of these concerns. The focus of the concern is the process of legalizing the reform. In order to fully implement the reform, 23 education reform bills need to be passed. The major agencies leading educational reform, the OER and the MOE, are discussing the draft bills, which are primarily related to structural changes. The major issues to be resolved are:

- Structure of new education ministry;
- Decentralization of power to local bodies;
- Establishment of a vocational education in the new ministry;
- Number of Local Education Areas;
- Conditions of teachers licensing; and,
- Ministerial location of religious and cultural affairs department.

The focal issue to be resolved is how best to decentralize decision-making authority. The NEA requires decentralization of power and calls for the establishment of committees to oversee the different responsibilities of the education ministry instead

focusing decision-making power with the minister and the central bureaucratic staff as has been the case traditionally. Lack of consensus has complicated and slowed the reform process.

The delay in legalizing the reform process is causing frustration in the public and has led to criticism of the government's sincerity in undertaking the reform. Some politicians and civic groups have been most vocal in their criticism.¹³ Moreover, a survey of the general public showed that nearly half thought the government was not sincere in its efforts towards reform, and 35% thought the government had accomplished nothing outstanding on educational reform. Thirty percent had no expectation that the government was to complete the task. (Bangkok Post, 11/3/01)

4.5. Uncertainty about Educational Reform

The slowness of the educational reform process has led to the current environment in which there is some uncertainty and confusion over policy directions. This is not altogether surprising in a period of reform. As human nature prefers stability and familiarity, changes that the reform requires are often taken as threatening because of increased anxiety caused by the uncertainty. This type of uncertainty can be overcome by measures such as education and proper incentives. On the other hand, a lack of clear policy results in confusion at both the policy and classroom levels.

As presented in section 2.1.3, international research shows that any significant reform requires changes throughout the whole education system. Thailand's educational reform prescribed in the NEA aims at a comprehensive reform. However, a lack of consensus in policy direction is threatening this ambitious undertaking. In the interviews conducted, many expressed the feeling, "I don't know what will happen, but this is what we have as of today". An initiator and strong supporter of educational reform movement stated that "we are stepping backward because of confusion."

Uncertainty in policy direction affects classroom level as well. Due to unclear policy direction, teachers and educational administrators are uncertain about what they are expected to do and how to proceed. Moreover, for many teachers, the principles and practices of learning reform are difficult to understand. The new concepts introduced in this reform movement, for example, learning-by-doing, learner-centered approach, local curriculum development, action research, and authentic assessment, are

¹³ In June 2001, a senator from Udon Thani threatened to launch a signature petition to ouster any cabinet ministers or officials who obstruct the reform process, since the government was too slow in handling the 23 draft bills. (Bangkok Post, 6/15/01) In October 2001, the Chart Thai party criticized its coalition partner, the Thai Rak Thai Party for the slow pace of reform. (Bangkok Post, 10/20/01) The Democratic Party sent its own version of 17 education-related bills to parliament as an effort to hasten the process of legalizing reform. (Bangkok Post, 10/25/01) In addition, civic groups such as The Assembly for Education Reform requested the Cabinet to pass several of the pending bills to Parliament in October, 2001. (The Nation, 10/14/01) In December 2001, the People's Network for Education Reform, an alliance of 12 civic groups, urged that the differences among educators and politicians be settled for the sake of educational reform. (Bangkok Post, 12/20/01)

intimidating since it is directly or indirectly questioning their everyday teaching practices. The dominant teaching style of “chalk-and talk” is the way they were taught. Moreover, with the pressure of Thailand’s examination-oriented education system, the teachers are comfortable with the teacher-lecturing-to-student approach. The hesitation to pursue a difficult task is prevalent among teachers. Meanwhile, the uncertainty is causing skepticism in the likelihood that educational reform will be fully implemented.

In order to reach a consensus on the policy direction and address the uncertainty, a sub-committee on educational reform was established in December 2001 to settle the differences in approaches between OER and other agencies. The effort indicated the government’s commitment to proceed with the educational reform. Although, by the end of March 2002, the necessary bills to legalize the reform have not reached parliament yet, a positive action has been taken toward reaching a national consensus.

Chapter 5 Lessons-Learned from Pilot Projects

This chapter presents education reform pilot projects in the areas of learning reform, ICT for education and decentralization of administration and financial management. After introducing a number of pilot projects, a summary of the activities and lessons-learned from the ADB TA Pilot Project are presented. Then the lessons-learned from various pilot projects are summarized. The common success indicators include sustained and continuous efforts, stakeholder participation and collaboration, and support mechanisms. In order to maximize the benefits of the pilot projects, a synthesis of lessons-learned and a mechanism for coordinating the efforts are needed. Finally, the roles of NGOs as policy makers and as participants in implementation of educational reform is discussed.

5.1. Examples of Pilot Project

The Thai government, international donors, including the ADB, and partners, NGOs, and local communities are conducting pilot projects to test approaches for implementing educational reform policy. The pilot projects focus on the learning reform, ICT in education, and decentralization of administration and management. Examples of pilot projects include:

1. Learning Reform
 - “ADB TA Pilot Project” by ONEC (ADB funded)
 - “1,200 schools for basic education curriculum” by DCID/MOE
 - “Child-friendly Schools” by ONPEC/MOE (UNICEF funded)
 - “Secondary Education Quality Improvement (SEQI)” by ONPEC and DGE/MOE (World Bank funded)
 - “Social Forestry, Education and Participation Project (SFEP)” in Chiang Rai by ONPEC/MOE (Kenan Institute Asia funded)
2. ICT for Education
 - “Schoolnet” by NECTEC
 - “Uninet” by MUA
 - “Lighthouse Project” for constructionism by Suksapattana Foundation (NGO)
 - “Distance Learning Project” by Distance Learning Foundation (NGO)
3. Decentralization of Administration and Management
 - “Five areas for decentralization of management” by MOE
 - “Decentralization and financial management for basic education of 12 LEA” by MOE

This list is neither exhaustive nor selective, however, it is not possible to obtain an overall picture of the pilot projects undertaken for the reform. The fact that no central

agency is overseeing or coordinating all the pilot projects was noted at an ONEC board meeting, but no follow-up has been pursued.

Most projects are concerned with learning reform, especially training for teachers and educational administrators. Building the capacity and skills of teachers and educational administrators is necessary to improve the quality of education. The pilot projects have emphasized stakeholders' participation with varying degrees of success.

Technology for education is another popular theme pursued since it is a priority on the nation's policy agenda. Although ICT for education involves establishing new infrastructure and developing human resource capacities, in which mobilization of significant financial resources is required, the potential of ICT is considered a worthwhile investment. There is not a consensus on the optimal way to utilize ICT in education, but a number of pilot projects are providing useful lessons.

Decentralization of management is a key structural reform. However, the outcomes of pilot projects are not clear. The projects are either on-going or have not been assessed. In general, pilot projects on structural reform are more difficult to implement than learning reform and ICT projects.

5.2. ADB TA Pilot Project

ONEC commissioned a national pilot project "ADB TA Pilot Project" to introduce learning reform (ADB TA 3585-THA). (Laeka, 2001) The pilot project used an ambitious school-based, whole-school approach to provide training on learning reform issues. This decentralized bottom-up model directly contrasts with the existing traditional authoritative top-down staff development system of in-service training provided in teachers colleges and universities. The project involved capacity building for 253 schools, 10,094 teachers, 224,471 students and 44 Local Research Teams (LRT) over a nine-month period. The approach aims to make the learning experience authentic and empower the learners (master teachers, school administrators and students) to take a more active leadership role in implementing the learning reforms.

Given the long history of a teacher-centered approach and a centralized management and monitoring system in Thailand, participants were introduced to two primary approaches:

1. Project-based learning as a learner-centered approach; and,
2. The Plan, Develop, Check and Act (PDCA) model of action research. This was used by the school-based management and LRT as a mentoring strategy.

Lessons learned from the ADB Pilot Project include:

1. There is tremendous interest and enthusiasm by the participants (teachers, administrators, and students) to be actively involved in the learning reform.

2. The pilot project's approach is sound, but further workshops are needed to help the participants to better understand the underlying concepts of reform.
3. Introduction of numerous variables over a short period is too complex for a new concept.
4. The workshop facilitators must make it clear that the materials are not prescriptive, but rather provide the tools for the participants to develop their own teaching plan.
5. Sustaining the lessons of the workshops will depend on additional workshops, the role of facilitators, and possibly incentives.
6. The facilitators or "master teachers" in this case the LRT, must receive additional capacity building to be effective.
7. The MOE needs to be more involved for a pilot project to be expanded past the pilot phase.
8. ICT could be used to reach more participants.¹⁴

5.3. Key Success Factors

During the TA, several pilot project sites were visited including the ADB TA pilot project. The observation confirms the need for important elements of reform such as clear goals, leadership, and professional development. Additionally, the key success factors from educational reform pilot projects can be summarized broadly as the need for continuity and sustained efforts, stakeholder participation and collaboration, and support mechanisms.

5.3.1. Continuity and Sustained Efforts

A continuity of efforts, commitments of the participants, and resources, from the beginning of the pilot stage until becoming an accepted component for education, is very important. Pilot projects are, by nature, experimental and are conducted over a finite period, usually 1~2 years (9 months for the ADB TA) in duration. However, the first couple of years of a reform is an initial trial period in which the new concepts first need to be understood and accepted by the various participants. This limited time is insufficient to ascertain whether the project's lessons-learned can be applied and be sustained, which are the ultimate purposes of implementing pilot projects. A true reform requires significant change and a time-consuming trial and error process is needed to find the best approaches to initiate and institutionalize change in the existing system.

For example, Schoolnet is a noteworthy ICT pilot project aiming the following:

- Provision of information exchange infrastructure for Thai schools;
- Bridging the digital divide between students in the urban and rural areas using ICT; and,
- Provision of an international gateway to the global learning network via the Internet.¹⁵

¹⁴ See more details for Dr. Pillay's report on teacher development under the TA.

¹⁵ It is piloted at the secondary level by the MOE with support of NECTEC.

Schoolnet started in 1995 and since then, the process of implementation has been marked by trial and error. The successes and failures have provided valuable lessons for policy makers. First, the network was established and computers were provided, but they were barely utilized. It was found that the high cost of the long-distance calls was an obstacle. With cooperation from the state telecommunication companies, Schoolnet succeeded in providing a 3-baht flat rate for calls to connect to the Internet. However, teachers were not able to use ICT because they lacked of necessary skills. Subsequently, teachers training was provided, and a network of local ICT experts was established to support the teachers use of Schoolnet. Use is still limited because contents were not readily available for teaching, especially materials providing Thai context in the Thai language. A lack of content is still an issue that must be addressed.

Through these experimental phases, Schoolnet found that in order to make use of ICT, not only infrastructure, but teachers' capacity and contents need to be developed. Before Schoolnet, the government tended to invest huge amount of money on ICT infrastructure, neglecting to consider how it should be utilized. However, the focus is now shifting to developing capable teachers and useful contents, while utilizing the existing infrastructure when possible.

Another impressive pilot project is the Social Forestry, Education, and Participation Project (SFEP). Its success has taken 10 years of constant, and intensive efforts. In the SFEP, which is being implemented by MOE and Regional Community Forestry Training Center (RECOFTC) with technical assistance from Michigan State University (MSU), students study local forest-related problems in their villages by interviewing community members and collecting data. Students then present findings to community members as a prelude for school-community collaboration on small-scale social forestry projects to address the problems.

To date, the outcomes are significant and impressive. Out of the 42 schools in the district, this school, which was described as average before the pilot project, scored first in essay writing according to the district supervisor. He said that their ability to analyze an issue and to develop a logical and comprehensive answer was far ahead of their peers in other schools. When a 15-year old student was asked why she liked the project, she answered: "Because I am learning how to learn. When I have a question, now I know where to find information and how to solve it."

The SFEP did not achieve these outcomes in a year or two. Including the planning phase, the SFEP has been implemented for over 10 years, starting in 1991. The process has been phased in starting with individual's awareness building, capacity building for teachers and administrators, outreaching into the community, and finally expansion from two-grades to the "whole-school" approach (grades 1-12). A key MOE official who is overseeing the SFEP said that "this type of reform will not happen in a short time."(Archer, 2001)

The SFEP's strategy is to expand "vertically" within the schools and through "diffusion" of lessons-learned to other schools. Successful pilot projects typically seek to expand horizontally, or in other words, to replicate at other sites to cover as much geographic territory as possible. In this case, the SFEP expanded from two grades to a "whole-school approach" at a very limited number of schools (7 schools in the current phase) but with continual assistance for a longer period. With limited financial resource, the SFEP chose to provide long-term on-going support, instead of attempting to scale-up to a larger geographical area. To expand horizontally, the pilot schools provide neighboring schools with lessons learned that can be built upon. However, since the SFEP's philosophy is to provide the teachers and administrators with tools to make their own teaching plans and approaches, scaling the project to nationwide basis will need a novel approach because there are no templates or prescribed methodologies.

The SFEP provides a series of policy relevant lessons such as:

- The benefits of staff development practices;
- The role of principals and district supervisors in supporting teachers to understand and utilize the learner-centered approach;
- The need for an on-site facilitator to provide assistance after workshops and training;
- The appropriateness of using local resources in teaching;
- The learning benefits obtainable through the use of the case study method; and,
- The school-community collaboration efforts to address local community development needs.

5.3.2. Stakeholder Participation and Collaboration

Success of Thailand's educational reform will benefit from broad participation and changes of attitudes by all stakeholders. "Participation" and "collaboration" are concepts at the heart of this reform process. Participation refers to the inclusion of all stakeholders in providing ideas and joining in implementation efforts. Collaboration refers to the need for the various stakeholders to agree on certain approaches and work together to implement those approaches. However, it is not realistic to expect that collaboration will happen naturally and people will change their attitudes in due course. For instance, the traditional power relationship between principal and teachers, educational supervisors and teachers, and schools and communities, are not on equal basis, with one of the parties being in an authoritative position. Strong leadership, training, and pilot projects are potential tools to change such power relationships. In the reform movement, some individuals or schools start their own school reform, but the majority of schools need support to trigger and facilitate changes. For those schools, pilot projects can provide great opportunities to begin the change process.

The ADB TA Pilot Project lists "being a project under ONEC" as the top success factor for pilot projects. (Nonglak, 2001) Being selected by ONEC is an honor,

especially for small schools in rural areas. Participating in “ONEC” pilot projects, even without financial assistance, can be an incentive for teachers to participate. Receiving external financial and technical support is considered a great help, regardless of the degree of assistance. The flexibility of budget utilization and encouragement by external experts helped promote the reform process in the ADB TA Pilot Project. Local consultants repeatedly encouraged the need to work in “a friendly and amicable way” with all participants. Participants in the ADB TA Pilot Project mentioned that they experienced increasing degrees of collaboration throughout the project period.

During the visit of a lower secondary school in Wiang Pa Bao, Chiang Rai, Northern Thailand, under the SFEP, it was clear that the project was fully institutionalized in their everyday teaching-learning practice with the support of all participants. There was neither “face-reading” nor formality in communication among the principal, teachers, students, community members (village headman, farmer, representatives from women’s association), education supervisor, and a full-time support staff. Collaboration among the participants provides a solid foundation for a new approach of community involvement in teaching-learning. This kind of collaboration, however, did not happen itself. Given the opportunity to implement the SFEP, with external assistance from the MOE, MSU, and RECOFTC, these remote schools have been able to establish significant change.

5.3.3. Support Mechanisms

The successful pilot projects have had support from both central education agencies and on-site facilitation following the initial training programs. In order to initiate change, pilot projects provide initial training and workshops to teachers and educational administrators. Without support, even if only rhetorical, from central education agencies, the pilot schools do not have the confidence to implement change. Just as importantly, success is dependent on whether there is a strong support mechanism to follow-up on the training course. Those involved in pilot projects all agreed that “training courses are necessary, but it is not effective enough to make a change.” Typically, Thailand’s professional-development programs for educators are three-day workshops. The comment of one of the principals who had attended such a one-shot course that was insufficient concurs. When requested to join an interview regarding the training provided, she said that, “I forgot about it all. It was almost half a year ago and there has been no follow-up.”

The importance of a follow-up support system was mentioned by many participants of the pilot projects. More specifically, the need for on-site-support on a continuous basis was pointed out. In implementing the ADB TA Pilot Project, local consultants found that “teachers need someone to talk to. They are not sure whether they are doing the right things, even if they are.” An ONEC staff member who helped organize the project noted that the role of LRT was critical for success. The LRT consisted of faculty members of education at nearby universities, local Rajaphat Institute faculty, and local experts. They visited each school at least five times during the project to give guidance to principals and teachers. They played a significant

facilitator role to help collaboration in schools and promoted the whole-school approach.

The SFEP also incorporated a facilitator. After providing the initial two-week intensive training for teachers, training was provided to local supervisors, so that they could help guide teachers once they returned to their classroom. The SFEP employs a full-time person who is an employee of RECOFTC, to provide on-site consultation and help organize community-school activities. This coordinator's tireless effort to visit remote schools regularly, bringing technical and moral support, is a significant asset for the SFEP.

Schoolnet developed a follow-up support system comprised of local technical volunteers. Their assistance is useful, but not sufficient. NECTEC, the implementing agency for Schoolnet, recruited volunteers, either network experts or content experts, from the local community. Teachers are given a list of volunteers and can contact them by e-mail. For the first year, about 60 volunteers participated. The system was utilized to some extent, but it did not achieve expected outcomes. According to the director of Schoolnet, "communication through e-mail only is not enough, and activities such as seminars and conferences help to get things going." But more capacity building for the teachers and on-site facilitators may be needed to actualize Schoolnet's intended results.

5.4. Synthesis of Pilot Projects

The lessons learned from various pilot projects should be utilized to support or oppose components of educational reform implementation plans. Particularly when conflicting views on implementation are causing delay and confusion, a synthesis of empirical data and qualitative information can provide useful research-based options for policymakers.

As mentioned previously, a lack of coordination among agencies is a serious problem in the Thai educational system. The system's inefficiency and ineffectiveness is also evident in the way various pilot projects are implemented. There is no single agency overseeing pilot projects, and only the implementing agency has a good understanding of progress, outcomes and issues of the project. Their lessons are not widely shared or disseminated. Furthermore, it is not clear whether the outcomes of the pilot projects are reported to relevant policy bodies. There are a number of committees and taskforces in this educational reform, but the lines for coordination between them, both horizontally and vertically, are not clear.

A synthesis of lessons learned from pilot projects can also provide useful guidelines for operational approaches. For example, in observing some pilot projects, there are a range of approaches to school reform. On one hand, the skills can be provided for each teacher to create their own lesson plans. On the other end of the continuum, detailed guidelines can be provided to be used as a manual to teach from. Ideally to decentralize learning reform, the former is required since the latter merely enforce the traditional style of teaching "new" content. Under the ADB TA Pilot Project, a single

strategy, the PDCA model, was introduced and distributed. At each workshop, it was explained that the guidelines were just that, and teachers were encouraged to create their own lesson plans. However, accustomed to following strict guidelines from the central agencies, teachers considered the guidelines as absolute. It was difficult to change the prevailing beliefs because many of the participants did not understand the basic concepts of learning reform.

The sustainability of the approaches and components of the pilot projects should also be analyzed. Some criticism of pilot projects is that “they are successful because they are given special supports over a limited period.” It is important to identify which approaches are sustainable and what factors are involved. For example, many projects seem to depend upon the “good will” of participants. However, is the good will sustainable? In fact, the “burn-out” syndrome is not new to teaching profession. The more sincere teachers’ efforts are, the more likely they are to burn out. In order to be fully institutionalized, what factors need to be involved, in addition to time and good will? In many cases, incentives may be necessary.

A synthesis of pilot projects’ lessons-learned can also help to understand the overall picture of the reform. Pilot projects seem to focus on specific areas, such as the learner-centered approach, ICT for education, and decentralization of management, and analysis is conducted for each individual project. However, they are mutually interrelated and a synthesis of lessons-learned, individually and collectively, should be conducted to apply to the learning reform.

A careful review and synthesis of pilot projects’ lessons-learned can provide answers to these questions. The time and efforts invested in the pilot projects should not be wasted and a synthesis, individually and collectively, should be made available and disseminated nationwide. To be effective, it is recommended that a coordinating body to be formed to give structure and guidance to projects, improve communications, and disseminate the result to respective agencies. Since there are many agencies involved, such a body, most likely a coordinating committee with a secretariat of educational professionals and a support staff, should include representatives from domestic and international organizations such as ONEC, MOE, MUA, UNESCO and also academic institutions. It should follow the principle that “unity in policy, diversity in implementation” as stated in the NEA. It should provide a forum for interaction and cooperation, information and guidance for the implementing units.

5.5. NGO Capacity

The contribution of NGOs in Thailand’s educational reform are to provide input to policy formation and to act as implementation agents particularly in facilitating local community participation. The NGOs participated in forums during the drafting of the NEA and provided some input. However, they do not have a powerful voice in policy formation. In general, their time and efforts are dedicated to individual activities that they are participating in, but they do not act collaboratively enough to make a strong case on policy matters.

Moreover, the general perception in Thailand is that NGOs are opposed to the government organizations (GO), rather than collaborative partners. This belief is largely a result of a number of “controversial” NGOs, that take positions for political reasons or because they are compensated by vested interests. Although these controversial NGOs are more active in fields other than education, the distrust between NGOs and GOs widely persists. A change of attitudes is needed for both sides, as the NEA calls for “participation.” In order to make use of their time and efforts, opportunities to vocalize their opinions should be given to NGOs, so that they can contribute to Thai education more effectively.

The main advantage of NGOs is that they are a strong implementation force at the grass-roots level. Since NGOs are more flexible and not restricted by authority, they can work in a more creative and timely manner. Moreover, NGOs usually employ locals who are well in-tune with the needs of local communities and have strong personal relations with the local stakeholders. In Thailand, top-down policy direction is the mode of operation, especially for the bureaucracy. NGOs’ efforts at the grass-roots level can help strengthen the bottom-up input.

For example, NGOs can play the role of facilitator between central policy authority and schools. As mentioned above, the facilitator plays a significant role in implementing the educational reform. Teachers need support, technical and/or moral, to pursue a new undertaking. The teachers who try to improve their teaching are not necessarily motivated by financial or reward incentives, but some are merely pursuing professional excellence. However, since such teachers are in the minority, they often become rather isolated and do not fulfill their potential. To try to fill the gap, the MOE places supervisors at the district levels that are to play a facilitator’s role. However, they are often too busy performing other tasks, and have to assist a large number of schools. NGOs that can concentrate on assisting the teaching-learning process, without bureaucratic obstacles, can help teachers with technical support on a friendlier and more effective basis. The Life Skills Development Foundation in Chiang Mai plays this role. Participating in the Child-friendly School Program in six provinces, it provides training and workshops to teachers and education supervisors. As mentioned above, RECOFTC also plays a significant facilitator’s role in implementing the SEFP project. The NGO coordinator regularly visits 9 schools, bringing international technical experts with new methodologies, and coordinating with the central authority, MOE in this case.

The NGOs can also play a critical role in project evaluation. As the director of Children’s Village explained:

“I agree that quality assurance is a good thing. However, the way to implement quality assurance needs to be re-considered. Hiring a private company to evaluate schools can just become nominal, or even worse, if corruption is allowed. The practice of visiting principal’s office over a cup of coffee will not produce clear results. The local community knows much better. They know who is good and who is not.”

The knowledge accumulated through NGOs' day-to-day experiences can be valuable tools for implementing and evaluating the reform.

Chapter 6 Discussion of Key Issues

To successfully implement educational reform in Thailand, a number of key issues must be addressed including the approaches to learning and curriculum reforms, professionalization of teachers, appropriate assessment, use of technology, and considering Thai cultural aspects. Educators first need to come to agreement on the approach to learning reform, including whether to prescribe constructivist or traditional approaches or to provide the tools for the teachers to decide what is best. In any case, a clear message must be delivered through teacher training programs. In addition to training, the professionalization of teachers requires the development of systematic support mechanisms including salary and promotion incentives, quality assurance of teachers, and development of professional communities. Quality assurance of educational institutions can change the way teaching and learning is conducted by assessing educational outputs consistent with reform objectives. Technology also has great potential to contribute to reform by reaching a greater audience, and by providing standardized, quality educational alternatives. Finally, unique Thai cultural aspects can both help and hinder reform. Positive aspects such as patience and good heartedness should be nurtured, while rigid hierarchical walls need to be disassembled through decentralization and a change in mind-set.

6.1. Learner Centered Approach

Application of the learner-centered approach is one of the central themes to learning reform in Thailand. (ONEC, 2000c, pp.9-14) Consequently, Thai educators must come to a common understanding as to the practical implications of using this approach. A clear, consistent approach must be promoted and taught to the teachers if the learning reform is to be successful. Implementation of pilot projects, such as the ADB TA Pilot Project, can provide important lessons on what works and what does not work. Additional piloting and training is needed to provide teachers with the tools to choose the best pedagogy for the learners.

The “learner-centered approach” is the most promoted approach of learning reform, but it is often single-mindedly misinterpreted as adopting a set of teaching devices such as field trips, group learning, discussions and report writing. (ONEC, 2000c) The learner-centered approach is actually a principle in which the importance is given to learners, and ideally, it encourages the development of individuals’ thinking skills. However, if misunderstood, teachers will become stand-by instructors, who do not prepare lessons, assuming it is the students’ responsibility to initiate their own learning. At a children’s day event, a student replaced “learner (child) -centered” with “buffalo-centered” as the word in Thai rhymes (“buffalo” is a metaphor for “idiot” in the Thai language). (The Nation, 1/14/02) The statement made a stir in education circles, because it indicated that there was a gap between learning reform policy and implementation. In order to optimize the benefits of the learner-centered

approach, teachers, as well as other stakeholders, need to truly understand the concepts behind the learner-centered approach.

There are two major pedagogical approaches to teaching and learning: the traditional approach and constructivist approach. These two approaches represent the two ends of the spectrum. In the traditional approach, teachers drilling students, lectures and “seatwork” are major instructional modes. Teachers maintain control of classroom activities and students work towards mastery of skills. On the other hand, the constructivist approach assumes that “learning occurs as students actively assimilate new information and experiences and construct their own meanings.” (National Council of Teachers of Mathematics, 1991) Accordingly, classroom activities such as group work and discussion are emphasized so that students can develop capabilities for applying knowledge, reasoning, and conceptual understanding. Memorization of facts and mastery of routine skills are considered less important.

In the current international educational reform movement, a solely traditional approach is considered outdated and unable to prepare students for contributing to today’s society and economy. Dominant thinking stresses many elements of the constructivist approach. The reforms aim to increase learning skills, particularly advanced or higher-level thinking skills, and to enhance student motivation and self-esteem. Although the traditional approach seems inadequate to achieve those goals, review of numerous studies show that the elements in the outdated, traditional approach are still “essential.”

“Finally, it should be stressed that there are no shortcuts to successful attainment of higher-level learning objectives. Such success will not be achieved with relative ease through discovery learning by the students. Instead, it will require considerable instruction from the teachers, as well as thorough mastery of basic knowledge and skills which must be integrated and applied in the process of higher level performance. Development of basic knowledge and skills to the necessary levels of automatic and errorless performance will require a great deal of drill and practice. Thus, drill and practice activities should not be slighted as low level. They appear to be just as essential to complex and creative intellectual performance as they are to the performance of a virtuoso violinist.” (Brophy and Good, 1986)

Recent international research focuses on the “distributed learning” model, which shares common attributes with Thailand’s “learner-centered approach.” A “distributed learning” model argues the need for a repertoire of approaches and strategies. Just as there is no single solution to all problems, one teaching approach will not facilitate the development of all types of knowledge. The teachers and students need to be able to move back and forth on the continuum between traditional and constructivist approaches to achieve the maximum learning outcomes, dependant on the content, the learning environment and the students. (See more details in Dr. Pillay’s report on teacher development under this TA, chapter 4.) A typical set of continua that represents the distributed learning model is:

Competitive	-----	Collaborative
International	-----	National
National	-----	Local
Individual	-----	Teamwork
Instructive	-----	Discovery

Sometimes learners need to explore and discover for themselves while at other times, they need to listen to teachers and reflect on the message. Learners need to develop the abilities to work and learn as individuals, in teams, and with and from technology. Individuals are expected to think locally and globally simultaneously. Such diverse abilities will allow learners to become critical consumers of information and knowledge.

The “learner-centered approach” in Thailand is often interpreted as being a constructivist approach. ONEC’s campaign “stop rote memorization without thinking or asking questions” uses parrots as symbol’s of the traditional approach. It is true that over-emphasis on mastery of skills and rote memorization is severely criticized by policy makers as well as the general public. Key words such as students exploration, interactive modes of instruction, collaborative work, authentic and multidisciplinary projects, and teachers as facilitators, are emphasized in the pedagogy of the current reform. Accordingly, the message is delivered that the reform is movement towards constructivist. However, there is a gap in policy interpretation between intended and accepted. An observation of the team leader of ADB TA Pilot Project explains the gap:

The “learner-centered approach” does not mean that students go on field trips or are involved in group discussion all the time. Many teachers misunderstand that the learner-centered as a tool, but it is actually a principle. The NEA says “learners are most important”, meaning that teachers should choose appropriate instructional modes for students sake. For certain content, lecture is most appropriate. That’s still “learner-centered.”

In other words, the learner-centered approach is for educators to choose the best pedagogy for learners. Given the over-emphasis on the traditional approach and the continuing need to develop basic skills, the most likely result in Thailand is that the emerging approach will end somewhere in between the extremes of the traditional and constructivist approaches. However, it is important for teachers to understand which approach will be more effective for student learning. Research and pilot projects can help answer the questions: which pedagogy works, when it works best, and why. Subsequently, promotion and training are needed to provide the teachers with a clear vision and the tools for implementation.

6.2. Curriculum Development

Reform of basic education curriculum is an integral strategy of learning reform. The NEA prescribes both “core curriculum” and “local curriculum”, in which the principle of “policy in unity, diversity in implementation” is reflected. The goal of the core

curriculum is to ensure that the students are meeting the basic requirements for subjects such as math and science. Development of local curriculum provides opportunities to diversify content through a participatory process and to meet local needs.

In order for the curriculum reform to succeed, there are two important issues that need to be addressed. One is setting standards for curriculum content and the other is enhancing teachers' capacity to develop curriculum. The standards for curriculum content are needed to ensure that what is taught is consistent with the goals of reform. DCID has already revised the core curriculum for the basic education level and is planning to implement a pilot project at 1,200 schools nationwide, starting in the 2002-3 academic year. It is important that DCID coordinates with IPST and ONES to ensure common understanding on standards of curriculum. Otherwise, different sets of standards will only cause misunderstanding and confusion.

Another issue related to curriculum reform that must be addressed is capacity building for teachers. Development of "local curriculum" requires a significant change of attitude, increased independence, and creative thinking by teachers. ONPEC provided training to develop local curriculum to 60% of schools under its jurisdiction. However, the impact of the training is not known yet and training needs to be provided on a continual basis. In addition, a mechanism for following-up with the teachers after the training is needed.

6.3. Professionalization of Educators

In order for learning reform to succeed on a nation-wide scale, the professionalization of educators, teachers in particular, is a necessary pre-requisite. Particular focus is needed on educators training and development, salary and promotion incentives, quality assurance of teachers, and developing professional communities.

Teachers are key players in educational reform and teacher quality is the most significant determinant of school quality. (Rivkin, Hanushek, and Kain 1998) "When all is said and done, what matters most for students' learning are the commitments and capacities of their teachers." (Darling-Hammond, 1997) How can the commitments and capacities of teachers be improved? As is the case in many counties, teaching is no longer considered a sacred occupation in Thailand. Teaching does not attract the most capable candidates as in the past. Many senior education officials interviewed during the TA lamented about the deteriorating quality and social status of teachers in Thailand. In the past, when these educators were in schools, top students chose the teaching profession. "Bringing back the high status for teachers will help attract high quality candidates," a director of ONES said.

In order to make teaching a highly respected profession again, the development of a new system for management of teachers is an important agenda item of the reform. The NEA outlines the following needs for the professional development of teachers, faculty members of education and other educational personnel:

- To develop new structural and functional requirements for organizational units concerned with improving teacher development;
- To provide guidelines for new teacher training programs, both in-service and pre-service; and,
- To establish a quality assurance mechanism for teachers including a licensing system for all teacher and teacher education institutions.

In Pillay's report on teacher development under this TA, he identified and analyzed the following key areas as crucial to the improvement of teacher quality within the context of educational reform: 1) Professional Development; 2) Incentive Scheme; 3) Quality Assurance; and, 4) Professional Communities. In addition to developing the teachers, it is vital that principals, district supervisors, facilitators and other educators also are trained on the various aspects of learning reform in order to support the teachers. Therefore, in the following discussion, "professional development" has been broadened to "educators training and development."

6.3.1. Educators Training and Development

While the physical resources and necessary infrastructure to provide pre-service and in-service teacher training in Thailand may be adequate, the quality of teacher training and development is increasingly becoming a concern for all stakeholders in the country. In recent years, those responsible for teacher training and development have not provided the necessary leadership for understanding and implementing educational reform and teacher development. This is partly attributed to a lack of cross-institution dialogue among teacher development institutions and a lack of investment in human resource development. Principals, and local and central administrators generally do not have the skills to facilitate and nurture teacher development. Furthermore, teachers and educators have not routinely participated in international "learning communities" and have not become familiar with innovative research in teacher development. As a consequence, there is a widening gap between the current knowledge and practice of Thai educators and their institutions, and the necessary level of knowledge, skills and practices expected of people in an emerging knowledge-based society. In spite of the Government's efforts such as establishing the IPST and assistance from the World Bank on SEQI, there is general consensus amongst educators, parents and students that the quality of teachers has regressed considerably in recent years. (Paitoon, 1999)

The major constraints to the design and delivery of educators training and development programs are a lack of:

- Necessary knowledge and skills about new learning strategies at all levels;
- Accreditation of the current teacher training and staff development programs offered by various providers;
- A critical mass of local experts to spread the new knowledge and skills throughout the teachers in the country;
- Suitable alternative model for in-service training;
- Any teacher registration and/or teacher incentive framework;

- A plan for national implementation; and,
- Indication of support and commitment by the Government.

Before any nationwide launch of the learning reform is considered, it is absolutely essential that a critical mass of competent educators and teachers are available and prepared. To achieve this, there is considerable amount of work yet to be done in developing the necessary knowledge and skills, and the delivery and support systems. Types of training may include:

- Pedagogues including learner-centered approach
- Curriculum development
- Assessment of students
- Use of ICT
- School-based management
- Subject-specific teaching

6.3.2. Incentive Scheme

The Teacher Civil Service Commission has developed criteria for promotion and supervision. The criteria concentrate on “personal discipline” such as attendance and moral values, rather than on classroom teaching performance. With respect to the latter, teachers are encouraged to focus on drills and repetitive practice until their students master the skills by following highly prescriptive procedures that are closely monitored for conformity. Accordingly, learning innovations by teachers are discouraged and conformity is rewarded.

In recent years, there have been attempts at revising the criteria for promotion by including indicators of good teaching practices.¹⁶ However, the proposals lack details and a considerable amount of additional work is needed. Regarding salary incentives, for example, there is a need to develop clear criteria for judging teachers on demonstrated performances for the raises and promotions. Also, there should be a link between continuous professional development requirements to incentives such as monetary rewards, scholarships and employment guarantees. Development of an Education Management Information System (EMIS) is needed to capture teacher profiles across the country in order to apply the criteria for quality teaching in an equitable fashion.

6.3.3. Quality Assurance of Teachers

The decline of teachers quality is also attributed to the lack of a quality assurance mechanism and teacher licensing. To date, very little work has been done to develop

¹⁶ For example, the Teacher Education Reform Office (TERO) proposed schemes were a significant shift from traditional practices, containing three elements including a salary supplement for outstanding teaching, financial support for school projects and financial support for the schools. The TERO’s academic coupon scheme was very novel and encouraged teachers to become self-directed in determining how they wished to undertake professional development activities.

a detailed monitoring and assessment system to determine the quality of classroom teaching and learning, particularly in regards to the learning reform. To date, the evaluations conducted have focused on the educational reform at a macro level, but have not dealt with classroom teaching capabilities. While such data is useful, it does not provide direct feedback to teachers on their teaching performance. Teacher licensing with periodic review and testing is another mechanism to assist in quality assurance for teachers.

Furthermore, it is not clear how the ONES and the Organization for Teachers, Educational Institution Administrators and Educational Administrators (OTEA) will work together. According to the NEA, the OTEA will set professional standards, and issue and withdraw licenses, while ONES has the broad responsibility for developing standards and evaluating the quality of educational institutions, within which teachers quality is a critical element. Moreover, the DCID also developed standards for “good” schools including standards for educational administrators and teachers. (ONEC, 2001b) Evaluation is conducted separately by the DCID and the ONES with very little interagency dialogue. There is a need to consolidate efforts and carefully develop a clearly articulated framework that is transparent for the participants and the public.

6.3.4. Professional Communities

Research suggests that quality schools are likely to have “a stable, professional community of experienced teachers with shared norms, values, and goals; a common focus on student learning; a willingness to collaborate; and an openness to reflection and new ideas, all directed toward high student achievement.”(Louis, Kruse, and Marks 1996) However, in interviews under this TA, many educators pointed out that teachers feel alone, and that “teachers need someone to talk to.” Similar sentiments were reported by ASCD, “There are many good teachers sitting in their classrooms feeling isolated, paralyzed, and disenfranchised.” (ASCD, 1999) The TA Pilot Project found that before the project, “master teachers did not receive recognition from their colleagues, although other schools visited them often.” Through implementing the project, they received due recognition from their colleagues. Development of professional communities can have an effective impact on school quality beyond individual contribution. The support is needed for teachers to help establish professional communities such as teacher associations and study group.

6.4. Quality Assurance of Educational Institutions

Establishment of a quality assurance system that measures outputs of the new learning paradigm will reinforce the teachers attempts to implement learning reform. As the director of ONES notes, “the change of assessment will change the teaching and learning.” In other words, the chosen method for assessment and the chosen performance indicators will influence instruction. Thailand’s quality assurance presently concentrates predominantly on quantitative inputs such as number of books in the library. When outputs are considered, assessment has tended to focus on students’ academic achievement by their scores on standardized tests. When schools

are accountable for test scores, they are reluctant to risk innovative teaching methods, including emphasizing higher-order thinking skills. Accordingly, the ONES can play a critical role in promoting the educational reform. ONES' major responsibilities are:

1. To develop criteria and methods for external evaluation;
2. To evaluate educational achievements in order to assess the quality of institutions at each level of education; and,
3. To submit recommendations on corrective measures to the institutions, in cases when they do not meet the standards.

Since the quality assurance of educational institutions is closely related to the quality of teachers as discussed in the previous section, the ONES should develop an extended monitoring and assessment system that includes monitoring of all teacher development activities. As a service organization with data analysis capabilities, ONES will be well-positioned to manage the monitoring and assessment system. The ONES should also consider how the monitoring and assessment can be decentralized so that organizational units throughout the system can become monitors and assessors, and report to ONES.

In developing a monitoring and assessment mechanism, it is important that a multi-method and multi-level approach be adopted, using both qualitative input and quantitative data from all stakeholders. In Dr. Pillay's report on teacher development under this TA, he explains that such a mechanism should take into consideration:

- Framework: A detailed framework is a priority to avoid the current duplication and competition amongst the various departments.
- Macro and micro levels: Although the current evaluation focuses on macro issues, it is important to develop tools to capture both macro and micro issues, in order to gain a clear measurement of the mastery of the learner-centered approach.
- Involving all stakeholders: Monitoring and assessment should seek input from students, teachers, parents, school administrators and the ACERC to develop a comprehensive understanding of the success of teachers.
- Internal and external monitoring: Internal and external monitoring are equally important. While internal monitoring provides quick feedback, external monitoring provides greater fairness and accuracy.
- Sampling: For external monitoring, careful sampling must be undertaken. A good decentralized system can be of significant help in assessing a representative sample.
- Data collection: There is an urgent need to develop a detailed process for data collection and data coding to reach a high degree of validity.
- Data analysis: It is important to determine the levels at which the data should be analyzed to provide useful feedback for classroom teaching, school administration, ACERC support, and provincial and national planning.
- Education of stakeholders: In order for a complex monitoring and assessment process to be successful, all stakeholders need to be thoroughly educated and trained in the concepts and process involved.

- Incorporation of EMIS: Considering the magnitude of the task, EMIS is needed as part of the development of monitoring and assessment model.
- Importance of feedback: Dissemination of the findings and follow-up activities needs to be planned.

It is also important for evaluators to understand that monitoring and assessment is meant to help improve the quality of teaching and management, not to police and patrol teachers and administrators. The ONES developed a training package for external evaluators, but in order to evaluate 50,000 schools every five years as required by the NEA, a large number of external evaluators are needed. The ONES is planning to outsource the evaluating to private companies, but it is very important to ensure that they understand the meaning and purpose of assessment in the context of educational reform.

6.5. Use of Technologies for Educational Reform

The use of information and communication technologies (ICT) has great potential to support educational reform efforts in Thailand and to respond to contemporary information needs demanded by the private sector and society.¹⁷ Furthermore, ICT can be used in education to cross age, time and space barriers to promote continuing education. That is, ICT in education can be a key to solve two major contemporary issues that face all societies, namely to decrease the gap in socio-economic status among population within a country and to provide lifelong learning to all.¹⁸ Equal access to quality education can be improved by ICT use for education. ICT can benefit teachers and students in remote areas by increasing the quality of education and connectivity to the world despite their disadvantages. Since ICT can help deliver education when and where it is needed, it increases lifelong learning opportunities for the employed, unemployed, disadvantaged and geographically dispersed.

The international trends for the use of ICT correspond well with the philosophy of Thailand's current educational reform. To prepare younger generations for the information society and to meet the needs for Thailand's development, the conventional teacher-centered approach is not efficient or effective. As part of the

¹⁷ ICT can be broadly defined as any technological means to communicate. The most commonly thought of means are the computers and Internet. However, TV, radio, video and satellite are also ICT and each has its role in education.

¹⁸ Such assumptions are now commonly shared internationally. For example, in 1996, former US President Clinton announced a plan to connect all US schools to the "information highway" by the year 2000. Similar policy objectives have been adopted by Denmark, Japan, Finland, the Netherlands, Portugal and Spain. In 1997, Singapore launched an ambitious plan called "Masterplan for IT in Education" to incorporate ICT into the school curriculum and committed US\$1.2 billion for implementation. Multilateral and international organizations have also played a key role in promoting the concepts in developing countries. For example, the World Bank (1998) and UNESCO (1999) reported on ICT's implications for education. Both reports advocate policies that stimulate innovations in utilizing network-based technology, both inside and outside the classroom, thereby facilitating socio-economic progress.

emerging education paradigm, ICT can be a tool for promoting self-reliance and creativity, acquiring knowledge, and providing continuous education for all Thais. ICT can provide teachers with training including two-way interaction and/or feedback mechanisms, while achieving economies of scale. Such training may focus on learning reform pedagogues, developing course content for ICT approaches, teaching best practices, school-based management, school reform initiative, and subject related software applications. Furthermore, ICT can support educational reform by establishing EMIS for quality assurance and management of teachers. Accordingly, Thailand's exploration of ICT use for education is a critical part of the reform efforts.

The policy vision, goals, and objectives for ICT use for education are generally agreed upon, however, the methods and details for implementation are not clear. The central unit and the fund described in the NEA have not been established. Accordingly, ICT implementation planning has not progressed and insufficient financial resources have been mobilized. The Institute for the Promoting of the Teaching of Science and Technology (IPST), Education Management Information Center (EMIC) under MOE, and ETV under MUA are involved in integrating ICT into education, but little interagency coordination has occurred. It is also not clear how the central unit for ICT will work with the Ministry of Information and Technology that the Thai government is planning to establish in October 2002.

Regarding ICT projects for education, a number of pilot projects have been undertaken. These projects are not yet mature enough to rollout on a national basis. Furthermore, the lessons learned are not widely share or disseminated, so that the efforts are not maximized to improve the overall status of Thailand's ICT use for education.

While Thailand's implementation of ICT for education is still at an early stage, the experience to date indicates valuable lessons that need further consideration before implementing on a larger scale. The following lessons learned are mutually interdependent factors that must be addressed in planning for the implementation of a holistic and practical approach.

1. Accessibility and Affordability of Telecommunications Infrastructure

A modern and extensive telecommunication infrastructure is a prerequisite to promote ICT use for education. Presently, accessibility is highly centralized and in order to achieve "education for all Thai people", the governmental needs to support the disadvantaged in remote areas. Furthermore, affordability must be considered.

2. Efficiency of Network

Currently, a number of networking systems for ICT have been developed such as the Education Network, Public Health Network, Official Units Network, as well as the commercial Internet service providers networks. However, they are not fully utilized for educational purposes. Moreover, the efforts are often piecemeal, redundant and inefficient due to the lack of clear government policies and plans.

3. Appropriate Content

Content is one of most difficult challenges facing ICT use for education. Even where infrastructure and networks are provided, they are underutilized since teachers do not have the content to disseminate the knowledge. Existing curriculum primarily focuses on basic computer and English. However, the potential of ICT use for educational reform can have far more significant impact if ICT tools are used in the learner-centered approach. In particular, a lack of appropriate Thai language software is impeding the progress of ICT use for education and much work needs to be done.

4. ICT Literate Teachers

Teachers are the key player in any educational reform and development of teachers may be the most difficult task for ICT use for education. Various agencies have provided training courses, but the one-time short courses have not had much impact. Sustainable peer group learning seems to be more effective. There was also an effort to train teachers to produce digital content in Thai. However, due to the lack of resources, both hardware and software, and heavy teaching loads, teachers have not been able to develop their ICT skills, hence they do not utilize ICT for teaching and learning. More effective training methods and a more realistic approach towards understanding teachers' roles need to be considered.

5. Wise Investment

The investment of the government has mainly focused on the systems and hardware, and very little, less than 10% has been invested in software and personnel. Since content and personnel are equally as important as hardware and infrastructure, a fair amount of investment is necessary. Furthermore, much of the ICT infrastructure for educational purposes exists in Thailand, although not all is state-of-the-art. The existing facilities can add value if maintained well. Therefore, investment in infrastructure can be minimized, yet still be effective.

6.6. Thai Cultural Aspects of Learning Reform and Decentralization

A highly-respected Thai senior educator emphasizes that unique aspects of Thai culture, based on Buddhism, can play an important role in educational reform. The return to "Thai-ness" began as a reaction to the impact of the rapid economic growth from the 1960s through mid-1990's. The unprecedented growth based on industrial expansion and export growth, improved the economic lives of Thais, but also highlighted income disparities, depletion of natural resources and conflicting values. In 1990, Dr. Sippanondha Ketudat stressed the need for a balanced approach to development and education that benefited from unique Thai cultural aspects such as the emphasis on the "caring heart", on personality, and on patience. (Sippanondha, 1990) This movement towards regaining Thai-ness gained momentum after the onset of the economic crisis in 1997, partly as an anti-capitalism/anti-globalization reaction to the negative social consequences of the crisis.

Today, many respected senior Thai civil society leaders, politicians, and government officials are promoting a return to "Thai-ness", based on Buddhist philosophies such as self-sufficiency and self-attainment. Buddhist philosophies and practices promote

a tradition of being “humble and polite” in providing education. Proponents of Buddhism encourage training of meditation to teachers and administrators. Prof. Sumon Amornvivat emphasizes the role of teacher as “kalyanamitta (amicable collaborators).” (Sumon, 1999) The term “a happy learner” is cited as an ideal state of education that reflects the Buddhist philosophy of self-attainment. When the primary role for education is focusing on improving economic competitiveness, “learning” tends to focus on skills development, but often “happiness” of learners is neglected. Inclusion of such “Thai elements” in education aim to create a cultural environment conducive to teaching and learning. The cultural environment for education does not only refer to the classroom, but also the whole school and the surrounding community in which schools operate. This is important particularly as schools are to collaborate more closely with communities in the new educational reform paradigm.

While there are positive aspects of Thai culture that can benefit reform, the deeply ingrained, traditional hierarchical practices are obstacles to educational reform. For centuries, Thai political, cultural and societal relations have been shaped by rigid hierarchical relationships. Although the modernization and professionalization of the government and private sector is breaking down the hierarchical walls, it is a slow and gradual process. The basic concepts underlying decentralization and learning reform run contrary to the traditional hierarchical structure.

Decentralization, in particular, will require a radical change of attitudes and values for those who are in positions of authority in the current system as well as more than 600,000 personnel in the nation’s education system. However, as of March 2002, there is opposition within the government to key components of decentralization of education mandated in the NEA.

In order to foster an environment that promotes positive Thai aspects and overcome hierarchical barriers, leadership must play the lead role, supported by intensive education efforts. The ADB Pilot Project, as well as numerous international studies, show that strong leadership, especially that of principals, is a prime success factor for educational reform. (Nonglak, 2001) If leadership creates a “humble and polite” environment, develops “happy” learners and decentralizes decision making, the reform is more likely to succeed in Thailand. Such leadership requires a significant change of attitudes and power relationships, and accordingly, leadership training is needed.

Chapter 7 Best Avenues for Future Development

This chapter provides recommendations for best avenues for future development by the Thai government and potential support from the ADB, based on research conducted under the TA as discussed and presented in the previous chapters. The first section stresses the need and opportunity to implement reform measures even if the whole educational reform approach has not yet been finalized. The primary focus of proposed support is for learning reform. This includes extensive capacity building efforts for educators, teachers in particular. The assistance can be provided through expansion of the ADB TA Pilot Project. The first step should be to synthesize the lessons-learned from the various pilot projects and apply them to the ADB TA Pilot Project. The implementation of the pilot project should focus on training for educators, establishing resource centers, developing teaching templates and establishing professional communities for teachers. In order for teachers to effectively implement learning reform, systematic support mechanisms for professionalization of teachers are needed and recommended. First, however, clear roles and responsibilities for all agencies is needed for education reform in general and for teachers in particular. Finally, establishment of an ICT educators' network that can provide services to support reform efforts of the pilot projects and to professionalize teachers is recommended.

7.1. Immediate Assistance for Learning Reform

The Thai government and the ADB can continue to support Thailand's educational reform by considering further project assistance to support learning reform. The current educational reform in Thailand is a landmark development after nearly 100 years of education under the present system. The NEA laid down a solid foundation to initiate the reform. The drafters and contributors should be credited for the NEA's innovativeness, far-sightedness, and comprehensiveness. Thailand's commitment to undertake such an ambitious reform should be genuinely supported. The Thai experience will be a good lesson for other countries. However, significant work needs to be accomplished before the NEA can be implemented in a meaningful way that can positively impact Thailand's economic competitiveness and the Thais' economic and social well-being.

The OER presented a comprehensive package, including draft legislation, for implementing the reform based on the NEA. However, a national consensus is difficult. A comment of a key political leader represents some current attitudes, "You [OER] offer a full course menu, but I will take a la carte." Many feel that Thailand should not wait any longer to implement the reform, considering the serious deficiencies in education. On the other hand, a supporter of the reform comments, "When you are in coma, you need to take full treatment. Just a couple of drugs will not save your life. Thailand's education is as bad as that." The different approaches to the reform are evident, especially on structural changes in which the lack of policy direction is causing uncertainty and delay.

It is recommended that concentrating on learning reform is the best way to proceed because:

1. Learning reform is focal to educational reform;
2. All stakeholders agree that learning reform is essential;
3. The ADB TA Pilot Project and other pilot projects have made significant progress that can be built upon;
4. Learning reform can proceed without further legislation; and,
5. Understanding and internalizing learning reform concepts is a long process that needs time and nurturing.

It is important to stress, however, the broader structural issues must be worked out before expansion of learning reform can be done successfully on a nation-wide basis. Furthermore, the professionalization of educators, teachers in particular, is necessary for learning reform to proceed. Systematic mechanisms that are needed to support teachers in the learning reform cannot be established until the larger structural and legal issues of educational reform are resolved. ICT can be used to both facilitate capacity building on learning reform and the professionalization of educators.

7.2. Best Avenues for Future ADB Support

Based on the lessons learned from the ADB TA Pilot Project, other pilot projects, the research on teacher development for quality learning and on the use of ICT for education, it is therefore recommended that the ADB and the Thai government support capacity building for educators including teachers, administrators and facilitators through expansion of the ADB TA Pilot Project, establishing systematic support mechanisms for teachers, and an ICT educators' network. The assistance should focus on the secondary education level. Recommended components include:

1. ADB Pilot Project Expansion: Capacity Building on Learning Reform for Educators

Component 1: Synthesis of lessons-learned from pilot projects

Component 2: Implementation of expanded pilot project

- a) Continuous workshops and seminars
- b) On-site facilitation
- c) Establishing learning resource centers for access to information
- d) Community and NGO participation
- e) Developing templates and approaches to provide tools for own-planning
- f) Establishing professional communities

2. Establishing Systematic Support Mechanisms

Component 1: Define roles and responsibilities

- a) Manual of Policy and Procedures
- b) National Teacher Development Framework

Component 2: Develop systematic support mechanisms

- a) Decentralize management practice
- b) Teacher incentive schemes
- c) Quality assurance of teachers and educational institutions
- d) Teacher licensing
- e) Education Management Information System (EMIS)
- f) Research

3. Establishing the Asian Educator's Network (AEN): ICT for Educational Reform

7.2.1. Capacity Building on Learning Reform for Educators

There is a need and an opportunity to deepen and expand the ADB Pilot Project on learning reform. The previous activities including workshops, seminars and on-site facilitation should be improved and continued. Additional aspects should be considered including establishing learning resource centers, developing teachers planning templates and establishing professional communities.

Component 1: Synthesis of Pilot Projects

Before proceeding, careful review of and collaboration with other pilot projects is needed, since these recommendations are preliminary. As mentioned in section 5.1, there are numerous on-going pilot projects with valuable lessons learned. A synthesis of lessons learned from these pilot projects can provide: 1) research-based options for policy makers; 2) guidelines for operational approaches; 3) the overall picture of the reform; and, 4) factors of sustainability of the approaches and components of the pilot projects. The time and efforts invested in the pilot projects should not be wasted and a synthesis of pilot projects, individually and collectively, should be made available and disseminated nationwide. To be effective, a joint committee should be established to lead the effort to facilitate coordination between the pilot projects.

Component 2: Implementation of Expanded Pilot Project

In order to realize thorough and effective educational reform, teachers, administrators and facilitators must be well-informed and actively participate in the reform. The importance of the teacher in learning is well established and accepted. The administrators, including the principals, district supervisors, and bureaucrats at the regional and national levels, also must fully understand and accept the changes that reform brings in order to support teachers and to develop systems that can facilitate change. As the pilot projects have shown, the facilitators' role is very important for the introduction of new concepts, approaches and methodologies. If, after the initial workshops and training are completed, there are not resource persons to facilitate, encourage and answer questions about reform approaches, it is doubtful that desired outcomes will be achieved.

Due to limitations in human and financial resources, it is recommended that the priority of the Pilot Project should be given to secondary education, particularly upper secondary level.¹⁹ The reasons being:

1. There is an opportunity to rollout the learning reform along with expansion of the 12-years of free basic education.
2. There is a need for secondary school students to think creatively and analytically, as they prepare to enter the workforce or higher education.
3. There are limited resources, both human and financial.
4. The upper secondary school is a reasonable target group with 3,000 schools.

The ADB Pilot Project can be expanded to include the following components that will provide more comprehensive support for the learning reform process.

Continual Workshops and Seminars

The success of the educational reform depends on teachers' understanding the theories of teaching and learning techniques for facilitating the development of higher-order thinking skills, and how to use new technologies in their classrooms. Professional development must be provided on a continual basis in order for teachers, administrators and facilitators to institutionalize their skills and knowledge acquired into the system, especially since the change is radical. The first step should be to provide the trainers and facilitators with a better understanding of the concepts of learning reform. The instructors of the teacher training institutions also should be involved. Training will also be needed for all members of ASREC who will be responsible for school-based management in the near future. Considering the current situation in which different agencies are providing similar training, a national framework of professional development is necessary for both efficiency and continual learning. Types of training include: 1) learning reform pedagogues, 2) curriculum development, 3) ICT use, 4) international best practices, 5) assessment, 6) school-based management, and 7) school reform initiative.

On-site Facilitation

On-site facilitation plays a significant role in supporting the change process. Facilitators' technical assistance for knowledge building and moral support to form learning communities is indispensable for the continuation of the reform process. The

¹⁹ Under the 12-years of free basic education policy, the projection for the next ten years indicates a decrease of the primary teaching personnel by 26,000, and increases in teachers at lower secondary schools by 22,000, upper secondary vocational schools by 26,000, and upper secondary general schools by 22,000. (Fry, 1999) The discrepancies could possibly be solved by redeployment of primary teachers at the secondary level and recruiting new teachers. Given the current declining quality of teachers, intensive training for in-coming teachers at the secondary level is an immediate need. Furthermore, the change that the educational reform requires is more acute for secondary school teachers. In educational reform, new curriculum and new pedagogy are introduced. The University Entrance Examination under the NEA framework, is to be abolished and a new system which gives more focus on GPA, will be introduced. However, the long standing tradition is difficult to change, and strong and constant support is needed.

facilitators' role in the pilot project is to give teachers a resource to ask on-site questions after the training and workshops have introduced the concepts. They are needed as agents of change to give teachers confidence in the new approaches. Experience, to date, shows that the most effective facilitators are not government officials, but representatives from institutions of higher learning, NGOs and the private sector.

Learning Resource Centers

Teachers, administrators and facilitators should have access to information on learning reform issues. Learning resource centers located in convenient geographic areas, perhaps at the LEAs or at nearby universities or institutes, can allow for easy access to helpful information. Information can range from demographic data to the latest research, so that the educators are updated and equipped with knowledge. Research should include both international and domestic sources. For example, questions such as what is the optimal class size, which pedagogy works best, and when and how ICT can be used effectively in the Thai context are all major concerns of the learning reform. ICT, written materials and resource persons may be the means for delivering information. The lack of Thai language content must be addressed before use of learning resource centers is optimized.

Community and NGO Participation

In the new learning reform paradigm, community participation is a key aspect to meet local needs, tap various types of local knowledge, and to facilitate participation and understanding at all levels of society. Education for the community participants, including parents, NGOs, businesses, and community organizations is needed. A series of short workshops should be held, first with the community participants themselves, to provide awareness of learning reform issues and to explain community roles in learning reform. Subsequently, sessions that include discussions and activities with teachers and students may be considered. Knowledge and experience can also be transferred to NGOs to assist in implementing on-site facilitation, and providing services at learning resource centers.

Provision of Templates and Approaches

To help increase the pace of the reform, provision of tools for teachers own-planning will be necessary. The tools are not necessarily detailed procedures, but guidelines so that teachers do not have to start from zero, but can create their own lessons plans based on the templates/approaches. Training on how to use the tools must be provided in an unambiguous manner. Since teachers must be more active and creative in preparing curriculum and facilitating education, motivational techniques and performance incentives should be considered.

Establishing Professional Communities

It is necessary to establish professional communities for the teachers and administrators. Professional communities refer to continual learning organizations that each member contribute to and benefit from. In Thailand, innovators are often loners, but they are the change agents and they need support from an organized

community of peers. Various types of communities such as associations, study groups, and informal meeting networks, can be considered and piloted.

7.2.2. Establishing Systematic Support Mechanisms

In order to develop capacity building for teachers, administrators and facilitators, development of systematic support mechanisms are necessary. Based on Pillay's work on teacher development under this TA, the following recommendations aim to ensure that there is agreement at the national level, practices are decentralized, and teachers are properly supported, incentivized, and assessed.

Component 1: Define roles and responsibilities

In establishing systematic support mechanisms, it is first necessary to define the roles and responsibilities of each agency for implementation. In order to increase efficiency and effectiveness, the following two mechanisms should be considered.

Manual of Policy and Procedures

The NEA provides the basic framework for educational reform, but does not provide details on the roles and responsibilities for implementation. A Manual of Policy and Procedures (MOPP) should be developed to complement educational reform in Thailand. This manual will detail the policy guidelines and procedures that each agency, unit, and personnel should follow to support educational reform. The scope should cover the national, local, school and classroom levels.

National Teacher Development Framework

There is an urgent need to develop a National Teacher Development Framework (NTDF) to provide the "unifying mechanism" for teachers development. The NTDF will provide a basis for all institutions, organizational units and programs dealing with teacher development to map their activities, divide the roles, and add value to developing quality teachers. The scope should cover pre-service and in-service training.

Component 2: Develop systematic support mechanisms

In order to provide the optimal managerial support, quality assurance, incentives, and data and information resources, systematic support mechanisms for teachers should include the following elements.

Decentralize Management Practices

Management practices must be decentralized, while accountability and rigorous reporting and accounting procedures need to be developed. Decentralized management will also provide opportunities for greater participants of local stakeholders through the ACERCs. In developing such a decentralized management model, training is required for all the staff involved and stakeholders. It is important for everyone to understand the new mindset in which management is to facilitate, but not control, the work of teachers. Furthermore, it will be necessary to develop teacher

and school profiles for the respective regions in order to monitor the quality and distribution of teachers.

Teacher Incentive Schemes

The various proposed teacher incentive schemes need to be considered and integrated into the Teacher Civil Service scheme. There has not been much work done in developing criteria for incentives. Performance-based incentive schemes need to be considered. Incentive schemes that measure the objectives of learning reform need to be linked with the decentralization of teacher development management and the ONES. Incentives should be linked to teachers' continuing education. Staff involved with teacher incentive schemes at the decentralized levels will need to be trained on their roles and responsibilities.

Quality Assurance of Teachers and Institutions

It is recommended that the ONES conducts quality assurance monitoring and assessment for both teachers and educational institutions. From a theoretical point of view, quality assurance for teachers is an integral part of quality assurance for institutions, since teachers have the greatest impact on learning in the classroom. From a practical standpoint, efficiencies in combining the monitoring and assessment process are evident, particularly in the collections and recording of data. Assessment is a core component of learning but there has been very little work done on how to design and implement methods of assessment. Supervisors and school administrators should also be educated about the new approaches to assessment.

Teacher Licensing

Teacher licensing needs to be established. There is a need to develop detailed guidelines for what constitutes good professional practices in teaching. Licenses should be reviewed and renewed periodically, perhaps every five years. Requirements for continuing education to maintain license should be considered. Also, to provide credibility to teacher licensing, clear and unambiguous procedures for application, probation periods and appeals, need to be developed and made publicly available.

EMIS

The EMIS can assist quality assurance efforts, licensing, and track continuing education progress by comparing teachers nationwide on the same set of key performance indicators. It also can provide information for teachers. The EMIS should be established considering the total amount of data generated and a need to access this data at various levels. The EMIS would serve the decentralized management of teacher development activities.

The Thai government and the ADB should consider providing ICT technical assistance, hardware and software for the establishment of a national EMIS for teacher licensing and monitoring and assessing teacher development under the concept of decentralized management. Also, there is a need to train staff who would be inputting data or using the information from the database.

Presently, both the MOE and ONES have on-going efforts related to establishing the EMIS. The first step in the process will be for the Thai government to decide the objectives of the system and which agency will take the lead on managing the EMIS. The Thai government must decide on how to follow the principle of decentralization of management (e.g. inputs into the system done locally), while maintaining a national database that can be used as a policy and planning tool.

Research

The confusion over educational reform, from policy to operational levels, is evident, but research can help understand the nature, current situation, and vision of the future for Thai education. If research is conducted timely and the outcomes are readily available, teachers as well as other stakeholders can judge the most appropriate options for their needs. There must be accessible and known mechanisms to allow access to research, such as the Internet and learning resource centers. Types of potential research include:

- Learning pedagogy
- Teaching techniques
- Professional development
- Use of ICT
- Optimal class size
- School-based management
- Subject specific research
- Curriculum development

7.2.3. Establishing the Asian Educators Network (AEN): ICT for Educational reform

It is recommended that ICT be utilized as an important tool for implementing educational reform. The primary benefits that ICT offers include greater outreach, bridging the digital divide, providing quality standardized instruction, and achieving economies of scale. Properly designed approaches can also stimulate creativity and allow for two-way interaction and/or feedback mechanisms.

Based on the results of Stamper's work under the TA, it is recommended that the Asian Educators' Network (AEN) be established to provide in-service and continuing education to teachers, administrators, vocational specialists and communities through a hybrid satellite based system. (For details, see Dr. Stamper's report.) The network is to provide direct broadcast video programs and data streaming of in-service computer-based instruction. On-going training will be accomplished through on-demand television, software and print materials delivered digitally by satellite. The first priority for the AEN will be to support the educational reform process in Thailand through the provision of training on learning reform pedagogues, developing course content for ICT approaches, teaching best practices, school-based management, whole-school reform initiatives, and subject-related software applications.

Subsequently, the AEN will expand to provide services to the Greater Mekong Sub-region, and potentially other Pacific Rim countries. Additional subjects such as health promotion, vocational training, and tourism may be conducted. The AEN is to be a cost-effective and self-sustaining initiative that provides services to a wide range of participants by leveraging underutilized means such as Thailand's satellites. The central unit for ICT in education that is to be established as mandated by the NEA could act as AEN's secretariat.

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