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INVESTING IN PEOPLE

HUMAN CAPACITY DEVELOPMENT ISSUES

IN THE EAST ASIA REGION

A REPORT FOR

THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

REGIONAL SUPPORT MISSION / EAST ASIA
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I. INTRODUCTION

The Education For All (EFA) conference held in Jomtien, Thailand in 1990 called attention to a well-established fact in human resource development: basic education is an indispensable foundation block of economic growth, participatory democracy, and individual and social well-being. Since Jomtien, nearly all of the countries of the world, including the seven which are the focus of this report, have committed to the policy of achieving universal primary education by the year 2000. The countries that will be discussed in this report- Cambodia, China, Laos PDR, Mongolia, Myanmar, Thailand and Vietnam- vary greatly in size, cultural complexity, levels of economic development and extant human resources and development capacities. Consequently, although the seven target countries share some common human capacity development problems, their different stages of development dictate substantial variance in the training and education assistance required to spur more rapid and sustainable economic growth.

The report is presented in four parts:

1) an overview of the relative status of human resource development in the region;

2) a synoptic review of the context for economic growth in each of the target countries and the implications for human resource development;

3) a brief list of possible human resource development options for USAID consideration in each of the country discussions;

4) a short list of investment considerations that are regionally structured, but that will address individual country needs.

In structuring the recommendations, three factors have been taken into account:

- human resource development needs which, in the short run (5-10 years), hold the greatest promise for immediate and tangible contributions to economic growth;

- activities, both extant and planned, of other donors that are focused on human resource development issues;

- the comparative advantages that USAID assistance can bring to the situation as evidenced by project activities in other countries and regions of the world.

Although the quality of basic education services may be severely restricted by the poor quality of teachers and lack of schools in a given country, neither of those two possible investments may appear as recommendations if, for example, UNDP has targeted the former, and the World Bank is likely to develop a project around the latter. This approach requires that a number of assumptions be made about USAID funding priorities(both substantive and political) and the relative needs of the individual countries.

This report focuses only on human resource production capabilities, i.e., formal schooling (primary through tertiary) and public and private sector training programs. Since information was gathered as part of a bench-study, the data reported are limited in breadth and quality by existing government and donor reports. Statistics, especially for Cambodia, Mongolia and Laos PDR, may be the best available, but should be viewed as illustrative indicators of relative educational progress, not as precise measures. Although a fairly broad array of data are available through a variety of sources on any individual indicator, single summary measures have been used for simplicity of presentation. Project design would require more in-depth analysis and collection of data from primary sources.

In short, the purpose of this analysis is a) to identify and document general hallmarks of training and human resource development capacity in each of the RSM/EA countries and b) to identify areas of relative priority for education and training investment as needs exist and can be demonstrably identified as barriers to economic growth.

The lists of investment options for USAID consideration are based on what are perceived to be USAID's relative strengths compared to those of other donors. Although over the years USAID has developed projects in almost every education and training sub-sector, in the past decade the Agency has established itself as a leader in each of the following areas.

- U.S.-based and regional training: academic and professional; short and long-term; internships and study tours; seminars, conferences and workshops.
- Sector assessments and resulting policy dialogue and planning documents.
- Educational administration at national, district and local level with emphasis on efficiency, accountability and instructional quality.
- Training in monitoring, evaluation, testing and measurement and development of valid measures of progress for increasing efficiency and accountability of educational systems and programs.
- Application of technology, both electronic and soft (textbooks, study materials, etc.) to increasing educational efficiency.
- Development of empirically based system-wide planning tools, projection models, and computer models to assess the costs and benefits of resource and policy options.
- Creation and strengthening of private sector support for technical training.
- Academic, technical and professional exchange, especially in leading-edge industries and trade areas.
- NGO and PVO development, with focus on early childhood education and nutrition linkages.

Finally, less effort has been expended on analysis of investment needs in China than on other countries. Because of China's size and complexity, and because of the low probability of any sizeable investment of resources by USAID in China, recommendations have been made which reflect those realities. Country analyses are presented in section III.

II. REGIONAL OVERVIEW

In terms of human resource development capacity, the countries of the East Asia Region fall into three categories:

Category	Characteristics	Countries
Industrialized	universal primary education enrollment and completion; near universal lower and upper secondary enrollment; university system offering MA and Ph.D. programs; specialized technical institutes serving regional populations; strong planning and management.	Korea, Hong Kong. Malaysia, Singapore, Taiwan
Transitional	universal primary enrollment with completion rate > 60%; lower secondary enrollment @ 50%; elite university system and some recognized technical institutions; planning and management mechanisms in place.	Thailand, Philippines, Vietnam, China, Mongolia
Pre-industrial	primary completion rate < 75% with high dropout and repetition; < 50% transition from primary to secondary; university and technical training limited in scope and quality; weak MIS with limited planning and management.	Myanmar, Laos PDR, Cambodia

Although the general characteristics defining these three types of systems are over-generalized, the educational data that are available through published sources support this division. As can be seen in Table 1, substantial variation exists among the countries in terms of primary school enrollment.

Gross enrollments are defined as the number of children in primary school at a given time divided by the number of children who were in each entering cohort. Thus, the gross enrollment rate may exceed 100 when repeaters, dropouts and otherwise over or under-age children are enrolled in the primary grades. Ratios significantly over 100 indicate substantial inefficiencies in the system. Ideally each student starting the primary cycle should finish in the required number of years of the primary cycle. Net enrollments refer to the ratio between the number of children entering the cycle in a given year divided by the number of children completing the cycle on time. The larger the difference between gross and net enrollment, the larger is the inefficiency of the system.

Table 1

Key Primary Education Statistics for RSM/EA Region

Country	Gross %	Net %	Completion %	Fem as % of male
Cambodia	n/a	n/a	n/a	n/a
China	135	98	81	94
Lao PDR	104	65	38	82
Myanmar	103	76	n/a	94
Mongolia	98	81	n/a	104
Thailand	85	n/a	59	97
Vietnam	102	84	58	94

Source: UNESCO 1993 Statistical Yearbook, except column 3: UNICEF Mid-Decade Goals.

As the data in Table 1 indicate, all of the target countries have relatively high gross enrollments. China is an anomaly likely caused by individuals who were deprived of educational resources during the past two decades, re-enrolling in primary education equivalency programs.

China and Thailand have enviably high net enrollment ratios, (98% and 92% respectively). China, however is the only target country with a primary school completion rate in excess of 80 percent (81%). Thailand (59%) and Vietnam (58%) exhibit hallmark primary completion statistics for traditional economies and also demonstrate a high level of parity between genders with female to male completion rates of 94% or higher. Although Thailand and Vietnam have achieved remarkable enrollment success in the past two decades, it will be very difficult for either of them to make a full transition to higher level economic growth with only three-fifths of their labor force among the ranks of primary school graduates. The relatively high levels of inefficiency marked by the low completion rates is costly in the short run because of the "wasted" investments made in students who do not finish even basic levels of education, and in the long run both countries will pay a heavy price for failing to equip the next generation with the functional skills necessary to participate in the modern labor force. Consequently, economic growth is closely linked to improving the primary completion rate in both of these countries and in increasing the transition ratio from primary to secondary school.

The data for Mongolia are especially disturbing since the country not long ago could boast of nearly universal primary school completion rates. Although nearly all Mongolian children enroll in primary school, net enrollment rates are only 81% and the primary completion rate is estimated to be less than 75% as a result of a precipitous decline in the last 3-5 years. Myanmar and Lao PDR exhibit similar primary enrollment characteristics with gross enrollments at 103% and 104% respectively and net enrollment rates of 76% and 65%. Primary completion rates are less than 40%. Data for Cambodia are not readily available, but

estimates for gross primary enrollments run as high as 80 percent. With the exception of Laos (82%), female enrollments are on approximate parity with male.

As shown in Table 2, at the secondary level, gross enrollments throughout the region are very low. Vietnam and China have the lowest enrollment rates (42% and 48% respectively) with the gross rates falling to 32% for Thailand, 26% for Laos, and 24% for Myanmar. Valid data are not available for Cambodia and Mongolia. The ratio of males to females in secondary schools is higher than at the primary level in some countries. The disparity is most pronounced in China where a 12% gap exists (53% vs. 41%) and in Laos (31% vs. 21%). Myanmar, Thailand and Vietnam have gender ratios that are near parity. Tertiary enrollment data are sparse and somewhat suspect for individual countries. On average, tertiary enrollments are less than 2% of the population.

Table 2
Key Human Resource Statistics
for RSM/EA

Country	Secondary Gross %			Tertiary Gross %	Illiterate Adults (in 000s)			
	T	M	F		T	M	F	F as % M
Cambodia	n/a	n/a	n/a	n/a	1,970	1,287	n/a	153
China	48	53	41	1.7	222,362	71,588	150,774	211
Lao PDR	26	31	21	1.4	382	97	285	294
Mongolia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Myanmar	24	25	23	5.4	5,151	1,432	3,719	260
Thailand	32	33	32	n/a	2,621	760	1,861	245
Vietnam	42	43	40	n/a	5,058	1,579	3,461	217

Source: Various

The historical, bi-polar distribution of human resource capacities within the target countries are revealed by the number of illiterate adults. China, with nearly 222 million illiterate adults is facing a diminishing problem given the high primary school completion rate in the country. The illiteracy rate should diminish dramatically over the next two decades with normal attrition among the older, uneducated population. Nevertheless, given the sheer dimensions of China's population, any shortfall in primary completion rates translates into millions of additional functional illiterates. Further, over 2.1 times as many women are illiterate as men. In both Vietnam and Myanmar over 5 million adults

are illiterate, with over twice as many women illiterate as men in each country (217% and 260%). Thailand has 2.6 million illiterate adults with the rate nearly 2.5 times greater for women than men. Laos with 380 thousand illiterates and Cambodia with nearly 2 million exhibit starkly different gender characteristics. Nearly three times as many women are illiterate as men in Laos; the disparity rate is only 150% in Cambodia. No valid data are available for Mongolia.

When examined region-wide, the statistics available indicate that, with the exception of Laos (insufficient data exist to make positive statements about Mongolia and Cambodia), gender differences in access to primary level education are not a major impediment to economic growth. However, as the transition rate from primary to secondary school increases, as it likely will over the next decade, there is reason to worry based on evidence from China and Laos, that disparities might increase as the expected length of the schooling cycle is extended. Assuming that the caliber of instruction at the primary level is of at least modest quality, the high levels of gender differences seen among illiterate adults are likely to dissipate with the passing of the older generations.

At the basic education and lower secondary level, there are three across-the-region characteristics that inhibit both short and long-term economic growth:

1) Low levels of internal efficiency, exemplified by high repetition and dropout rates and overall low completion rates;

2) Poor quality of learning fueled by inappropriate curricula in some cases, weak and insufficient pedagogical materials in others, and inadequately prepared and qualified teaching force; and

3) Weak management at the system, local and school level resulting in inefficient use of instructional time, low levels of faculty and student motivation, and inefficiencies in resource allocation.

The situation is most extreme for those countries in category three as noted above. However, international donors, including the World Bank, the Asian Development Bank, and UNICEF have mounted programs focused on universalizing primary education and raising quality in each of the USAID target countries. The resources available through these projects and the emphases placed in each of them, leave a number of critical areas under-financed and under-developed relative to their importance in facilitating economic growth.

Given the similarities of development needs, it may be possible for USAID to capitalize on its comparative advantages in particular areas of technical assistance and training and to achieve economies of scale by establishing or strengthening regional training/TA centers that are focused on one or more of the critical cross-cutting areas inhibiting the development of basic and lower secondary education services. Three areas of potential investment are discussed in the **Regional Recommendations** section of this report.

At both the lower and secondary education levels throughout the region, enrollments lag significantly behind those of countries which have already broken through the transition to economic growth, as illustrated in Figure 1.

There is a rapidly expanding body of evidence that indicates the high rate of return to primary education diminishes as countries approach levels of universal enrollment, with the returns subsequently accruing to secondary level investments. Economic growth patterns and literature documenting the process throughout the region indicate that technicians with a secondary education are

the sine qua non of continued economic growth and productivity. In short, the problem is that skilled labor is in critically short supply throughout the region. Even more advanced countries such as Hong Kong and South Korea are facing skill shortages especially in higher-value-added production jobs.

As countries like Thailand and, shortly, Vietnam move from labor-intensive industries to those that are higher-technology based, the dearth of engineers and technical laborers act as a depressant to growth. The shortage of technically skilled labor has created a competitive bidding war for these workers, thereby driving up production costs and, in the long run diminishing cost competitiveness. In Thailand, the cost of technicians has increased by as much as 20 percent in recent months; for employers to deny the increases would be to lose the workers to competing firms. The Thailand Development Research Institute reports that in 1990 only 17% of the work force had more than a primary school education. Investment in economic growth in the USAID target countries that are in the transition stage, must not only be on infrastructural development, but on human development as well, especially at the technical skill level.

The Asian development model suggests that a reliance on both public and private sector efforts to develop mid to professional levels of competence is required. Even in Malaysia where the government relies heavily on technical colleges and polytechnics to produce skilled labor, there are examples of joint ventures between the state and the private sector to develop training operations such as the Penang Skills Development Center which has produced more than 3,000 graduates. In Korea, both Hyundai and Samsung have established their own high schools to ensure a steady supply of quality workers. In Hong Kong, JCG Finance corporation provides each of its 390 employees two to three training courses per year and invests 42 percent of its operating expenses in skills training. Bank Bali in Indonesia upgraded the skills of its 3,500 employees by spending $2.1 million on training and currently runs its own banking and finance school. Sustained economic growth depends upon both public and private sector support for

human resource development.

A sustainable USAID investment should ensure that both government and non-government training funds are invested broadly and efficiently. Training and technical assistance that facilitate the incorporation of exemplary models from the region and from the United States should be given high investment priority.

The importance of a well-educated stock of workers for economic growth is irrefutable. Korea serves as a case in point for the other transitional economies of the region: in 1986 when GDP in South Korea was at the level currently found in Malaysia, it had a secondary school enrollment of 90 percent-Malaysia's is now around 60 percent. Thailand and Vietnam with secondary enrollments of about 35 percent have far to go in preparing a human resource base of sufficient quality and depth to support even more rapid economic growth.

The development and expansion of secondary education and technical training are critical to continued growth and prosperity in both of these countries. The pre-industrial countries within the RSM/EA purview (Cambodia, Laos, Mongolia, and Myanmar), must also keep their eye to these human resource needs in the long-term. However, their immediate objective must be to increase the quality and quantity of primary school graduates while conserving scarce resources for expansion of the next level of the formal education system.

III. COUNTRY ANALYSES

A. Vietnam

The United States is coming into the donor assistance category as a minor player. It is estimated that the U.S. will provide less than 2% of foreign assistance to Vietnam, and is arriving relatively late in the game and therefore will be relegated to occupying small, but critical development niches.

With a population of 71 million concentrated primarily in rural areas (80%), Vietnam is rich in natural resources, has a highly literate human resource base (88% literate, 84% net primary school enrollment rate), a rapidly expanding export market (approximately $15 million surplus in 1992), recently strengthened political ties with most of its Asian neighbors, and a growing financial base for capital investments. Yet, agricultural productivity accounts for 50% of GDP, the industrial sector (mainly light industry) comprises only 20% of the economy, and trade about 16%. External trade is comprised of unprocessed, primary commodities and a small amount of light manufacturing. Unemployment, estimated at 20-25% of the eligible work force, and the absence of modern banking and financial services, accounting and legal services including contract law and property rights, and the lack of enabling regulatory codes and legislation, hamper the expansion of business and investments by foreign entities.

Although many of the human resource development needs parallel those found in the former Soviet Union, Vietnam presents a more favorable environment for realizing an immediate return on focused training and education-related infrastructural development since the party has enacted policies favoring privatization. However, since overall social policy remains the responsibility of the party and program implementation is the responsibility of the state, training assistance must be directed at both sides of the equation if long-term benefits to training assistance are to be sustained. Assistance to further human capital formation by A.I.D. is advisable because:

- a low-cost, industrious, relatively well-educated work force is already in place;

- Vietnam is strategically located to regional markets and its potential volume of inter-regional and inter-national trade (especially with Japan, China, Hong Kong, Taiwan and Singapore); and

- Vietnam's commitment to market liberalization and implementation of social and economic reforms is strong.

Economic growth is currently slowed not only by a cumbersome bureaucracy and lack of supportive regulatory environment, but because of a weak technical training and support structure. Manufacturing and exports have been fueled by expansion of rice and oil production. The technical skills necessary to develop further and to maintain the infrastructure to support other forms of production and light industry are lacking in both number and quality. Continued economic growth and diversification of the manufacturing and production sectors will rest heavily on the development of a technically proficient cadre of workers who possess business, production and maintenance skills.

Over the years, Vietnam has demonstrated a remarkable ability to adapt to changing political and economic circumstances and an equally impressive commitment to the development of human resources. Before the August Revolution in 1945, more than 95 percent of Vietnam's population of 20 million people were illiterate. Following large scale literacy campaigns and the development of the primary education system over the next three decades, Vietnam had achieved almost universal primary education enrollments by 1990 and had made hundreds of thousands of adults literate through continuing education (complementary education schools).

Despite these gains, economic growth in Vietnam remains shackled by an unacceptably low (and possibly declining) primary school completion rate and by substantial variance in educational attainment by geographic region. Some estimates of illiteracy among adults run as high as 6 million people. Some statistics also place the number of children registering to go to school at only 50 percent of the total 6-10 year old population. This number disguises the substantially higher enrollment rates found in the south and in metropolitan areas compared to the north and rural/mountainous areas where enrollments run much lower. Primary school completion rates are as high as 65 percent in Ho Chi Minh City and as low as 38 percent in the eight mountain provinces in the north.

The government has encouraged the formation of semi-public schools although most primary education in Vietnam is provided by the public sector. In these semi-private facilities, equipment and curriculum are provided by the state, but teachers' salaries, maintenance, etc. are raised through fees. In 1992/93, approximately 5 percent of primary students were in semi-public schools and about 15% of secondary students. The Ministry of Education and Training(MOET) policy is to increase the number of primary students in these schools to 15% by the year 2000. Total fees may run twice as high as for regular public school despite the fact that quality in the private schools may be worse. Especially at the secondary level, the private pursuit of education indicates the strong level of interest in acquiring educational certificates and higher level training.

Repetition rates at the primary level are estimated to be about 8 percent and the drop-out rate is estimated to be about 9.4 percent. The net result is a relatively inefficient system that requires 8.1 years of investment to produce a graduate from the five year primary cycle. With only 450 students out of every 1000 completing the primary cycle, the impact on the production of a literate, skilled work force is clear and foreboding. The most commonly cited reasons for the non-completion rate are the poor quality of instruction, inappropriate curricula and testing procedures, and the economic constraints faced by the students. The emphasis given to each of these varies by the geographic location of the student, with economic problems cited more frequently in the poorest

areas.

Compounding the problem of quality of educational services is the amount of time actually spent on schooling. In comparison with the world average of 4,000 periods spent over the primary cycle on instructional activities, Vietnamese primary students are offered 36 percent as much instructional time as their Indonesian counterparts. Quality of instruction is, of course, more important than quantity, but Vietnamese children face a double barrier in anticipation of competing with their counterparts from many other Asian nations where both time and quality of schooling are no longer development issues.

Since 1990, enrollment increases (1.4% per year) appear to be keeping pace with population growth for the relevant age cohort. Average attainment for students from Hanoi is 5.9 years, for students from Ho Chi Minh City 5.2 years. However, students from Gia Lia-Kon Tum in the central highlands is 2.7 years and in Lai Chau, a remote mountainous region, only 2.5 years. As free market forces take hold in Vietnam, students from the more prosperous, less remote areas, will undoubtedly have access to more and better educational facilities thereby exacerbating existing inequities.

Ethnic minorities comprise about 13 percent of the population but account for only 4.2 percent of those enrolled in the basic education cycle. Tuition fees, linguistic differences, poorer facilities, and high opportunity costs (especially as perceived for girls) will likely contribute to a growing disparity unless steps are taken to ameliorate the differences.

Gender differences exist at all levels of schooling, although they are not as great as the variance in attainment by ethnicity and geographic location. Female attainment is approximately 95 percent that of male. Among the general population aged 10 years and above, 16.6 percent of girls did not attend school compared to 7.5% of boys. As industrialization proceeds and as the direct costs of schooling increase, it is likely that the gender gap may grow wider in the coming years.

Curricula at all levels are outdated and still steeped in pre-liberalization ideology. School administrators and ministry planners lack training on how to design and operate decentralized schools and systems and are generally unfamiliar with how to use empirical research to inform and improve the quality and efficiency of educational institutions. Only one-third of the primary teachers have completed the normal pre-service teacher training program, yet the national colleges operate at only 38 percent of capacity. Most teacher preparation takes place at the provincial level, where teacher training institutes operate at full capacity, in part because of lower opportunity costs associated with studying in one's home community. However, the provincial institutes also have the lowest quality of facilities, equipment and training staff.

Recommendations for USAID Assistance

Recommendations 1 and 3 below apply to both party and state officials and the second recommendation applies to individuals already working in the private sector. In the area of human resource capacity building, three areas stand out as potential targets for U.S. assistance:

1) Training and TA to write civil and regulatory codes to develop a more supportive environment for liberalized trade and economic policies;

2) Formation of training/internships and cooperative linkages between U.S.-based Vietnamese individuals and organizations and those in Vietnam, perhaps facilitated by short-term practical study in the U.S. (<6 months

in duration). The legacy of capitalism in the South, its better infrastructure and higher levels of human capital, its higher per capita income (2 to 1 over the north) and linkages to overseas Vietnamese, technology and capital give it a distinct advantage in the move toward economic liberalization and growth.

3) Support for education and training policy formation, especially for basic education services in the north, among marginalized populations throughout the country, and for the development of specialized technical market-oriented job skills.

B. Laos

Laos has a population estimated to be 4.3 million with an annual growth rate of 2.8%. Over 85 percent of the population lives in 12,000 rural villages with the remaining 15 percent concentrated in Vientiane and three other major cities. In 1991, Laos had an estimated per capita income of $230 making it one of the poorest countries in the world. Basically a subsistence economy, its known natural resources are largely unexploited. Lack of infrastructure makes communications and transportation difficult and is exacerbated by the country's difficult geographical features. Most villages have no access to roads and 40 percent of existing ones are impassable during the rainy season.

Reforms aimed to develop a market-oriented economy began in 1985 and have resulted in GDP growth in recent years averaging slightly more than 5% (6.6% in 1990 and 4% in 1991). A major constraint however, is a poorly educated labor force and a shortage of managerial and technical skills. The government has given priority to improving the quality and efficiency of basic education.

Literacy rose from 33% in 1979 to 54% in 1990 (vs. 87% in Vietnam and 93% in Thailand). The national strategy for education was formulated in 1990 in a document titled, "Education Strategy from Now Until the Year 2000". The Fifth Party Congress continued implementation of this strategy emphasizing primary education, training and re-training of technicians and skilled specialists to meet the needs of the changing economy. Key to these steps was centralizing planning under the Department of Planning and Department of Public Investment Programmes.

The critical document guiding human resource development in Laos is the National Program of Action for Children (NPA). Village administration committees are responsible for primary, preschool and nonformal education. District authorities have responsibility for lower secondary education and for teacher training. Between 1985 and 1988, annual public expenditure on education was the equivalent of about 2% of GDP, among the lowest rates in the world. Recurrent expenditures for education have gone down from 1.9% to 1.1% of GDP and from 15 to 8% of total public recurrent budgets (vs. 20% in some places). In 1990, following general civil service salary raises, recurrent expenditures were reported to have increased to 2.5% of GDP and 19% of total recurrent expenditures. The reality is that salaries are often not paid and thus the increases are, in all probability, an overstatement. Recurrent spending in other Asian countries with per capita incomes less than $500 per annum averages 3.3% of GDP.

The central problem facing Laotian basic education is poor quality. Significant increases in gross enrollment rates have been realized since 1975, but overall efficiency is down because of very weak sector management and financing. The system is characterized by extremely high repetition and dropout rates. Repetition rates range from 40 percent in Grade 1 to 15 percent in Grade 5; repeaters constitute 30 percent of the total primary school population. Fewer

than 1/3 of grade one students complete primary cycle. At the lower secondary level, repeaters occupy 11 percent of the school places and only 52% of cycle entrants matriculate.

In 1988-89, Grade one enrollments were almost twice that of the 6 year old population. On average, it takes 11-12 years for students to complete the 5 years of primary school. Primary dropout rates equal about 55% of the cohort by the end of the primary cycle. Forty percent of children in urban areas reach year five of primary school, versus 33 percent in rural areas; only 15 percent make it to the final year in the mountainous areas.

The number of ethnic groups range between 38-100, depending on how they are defined. Upland and highland Laos (Lao Theung and Lao Soung) represent 40% of the total population, but only 27 percent of primary and 5 percent of lower secondary enrollments. Low enrollments are due to the remoteness and low population density of the population and to the mobility of inhabitants and linguistic differences. (Lao Loum are the major ethnic group and primary speakers of Lao/dialects.) Forty four percent of all primary students were female in 1988-89, yet only 26% of Lao Soung students were enrolled in school. Low enrollments in the rural areas are also the result of relatively poor health among the inhabitants. Children under five years of age account for over 1/2 of all deaths in Lao PDR. The national average of under-5 mortality (156/1000) varies between 50 in some areas to as high as 400 in remote areas.

The educational problems faced by Lao educational leaders may be summarized as follows:

- inappropriate curricula (12 subjects at the primary and 17 at the lower secondary level) and teaching methods (rote learning; exam focused; no remediation or student feedback);

- scarcity of instructional materials (fewer than 5% of students have texts; problems are cost, number of texts required, poor delivery system);

- low level of teacher qualifications (1/3 have less than upper secondary degree) and poor performance (no in-service and no administrative support/training). The proportion of unqualified or untrained teachers in 1989 in Champassak was 10 percent versus 68 percent in the more remote province of Luang Namtha;

- few mechanisms for teacher upgrading and professional support;

- weak management information systems (MIS) and assessment and evaluation system;

- insufficient number of and poor condition of physical facilities (60% of primary buildings need reconstruction.)

- lack of long-term, integrated planning, especially on efficiency issues (general financial and management problems in all sectors, of which education is only one example). Only in 1986 did the MOES begin collection of data, but then at the level of districts and provinces, not at the school level. There is no clear purpose to the data collection instrument and it is overly complex;

- under-financing: the government has relied on external agencies for capital expenditures, but can not meet recurrent requirements. The central government is taking back approval and accountability responsibility from local agencies. Teacher salaries are not competitive with private sector wages and are only 1.8 times GDP per capita at the

primary level versus 2.3 times GDP per capita in other low income Asian countries (2.0 vs. 3.4 at lower secondary).

Overall civil service reform is required to bring salaries into the competitive range. The numbers of teachers, currently high by most Asian standards, must be reduced to increase efficiency.

The government is in the process of drafting a plan to restructure educational administration. School administrators are most often recruited from the ranks of teachers. They lack training in principles of management, decentralization, curriculum and planning. This represents a key area for USAID investment.

Recommendations for USAID Assistance

1) Technical and training assistance to education planners, financial specialists and education administrators;

2) Training and TA for private sector business development catalysts;

3) Coordination with other donors, especially the Asian Development Bank and UNESCO on support for improving basic education services, especially in those areas in which USAID has comparative advantage as noted earlier.

C. Thailand

Thailand has made significant progress in the education sector over the past two decades. Following on the World Conference on Education for All(EFA) held in Jomtien in 1990, the Thai government introduced a national Education Scheme in 1992 designed to call increased attention to the role of education in human resource development, to improve educational opportunities for disadvantaged children and women. Evidence of the Thai commitment to education is that 19% of the national budget was spent on education in 1993, a percentage that is larger than that for defense or health. Nearly one-half of sectoral spending is for pre-school and primary education.

More than 80 percent of the primary school-age cohort attend school; a figure that is already higher than the goals established in the EFA Declaration. Enrollment statistics vary little by gender: 96% of males comprise the primary school population and 94% of females. Illiteracy rates have fallen from about 30% in 1960 to only about 7% in 1990. Literacy rates for males average about 97% and about 92% for women. These percentages, however, are significantly lower among minority groups living along the north and northeast border and remote southern locations. Repetition rates for Thailand (8%) are relatively low by comparable Asian standards and a primary to lower secondary school transition rate of 73% appears reachable by the target date of 1996.

Despite their success at the primary level, Thai officials have achieved far less progress at the secondary school level. Only 47% of children aged 12-14 years of ages were enrolled in lower secondary school in 1992, the lowest figure among ASEAN nations. Social-economic disparity compounds the problem: only 24% of lower socio-economic status children attended lower secondary school compared to 90% of middle and upper socio-economic status groups. Only 14% of children from farming families can hope to get a secondary education and 2% will enter higher education. This great potential resource of human talent is needed to fuel the fires of continued economic prosperity. Therefore, one of the primary objectives of the education development plans over the coming decade is to increase the

educational opportunities afforded to all children at the secondary level, but especially among economically disadvantaged segments of the population.

These accomplishments disguise the fact that by the year 2000, approximately 75% of Thailand's work force will have only a primary education or less. The preparation of skilled workers to participate in the transition to an industrial/technically based economy is therefore critical to continued economic growth.

Recommendations for USAID Assistance

1) Support to Thai education and trade and industry officials in strengthening technical skill development at the secondary and post-secondary level in both public institutions and in private sector firms;

2) Provide technical assistance and training in support of expansion and quality improvement of secondary education;

3) Assist select Thai institutions to offer training and HRD-related development services to other countries within this region and to serve as a catalyst for inter-regional cooperation and exchange.

4) Training and technical assistance for environmental protection and rehabilitation.

D. Mongolia

Since 1990 Mongolia has undertaken a significant process of reform, including the ratification of a new Constitution in 1992 that provides a new system of parliamentary democracy and which guarantees human rights, including expanded educational services. These changes have taken place n the face of a declining economy. Mongolia's major exports are raw materials, wood products, and a few processed goods such as cashmere, leather jackets and carpets. The mining and shipment of natural ores constituted 56% of export earnings in 1992, and although market prices are currently stable, Mongolia's dependence upon a single industry for foreign exchange places it in a very vulnerable position. Mongolia's 2.5 million people are outnumbered 10:1 by cattle which account for 70% of all agricultural production.

Debt to other countries and to multilateral organizations equals $1,150 per capita compared to the median debt per capita among all LDCs of $250. The discontinuance of Soviet aid resulted in a loss of 30% to Mongolia's GDP, approximately 5 times that felt by most Eastern European countries. Most of that assistance helped to support economic sectors with only 0.1% percent going to education. The loss of these funds has created a near crisis situation in terms of being able to capitalize economic infrastructure. This threat combined with a pervasive view that historically, Mongolia has over-invested on social development does not bode well for new resource allocation to the social sectors including human resource development. Between 1990 and 1992, Mongolia's GDP per capita declined nearly 25% and rates of economic growth since 1989 have been negative: -2.0 in 1990, -9.9 in 1991, and -7.6 in 1992. Agricultural output has declined over 40% during the same time period, resulting in food shortages and nutritional deficiencies. Unemployment rates are estimated to be about 15% (110,000 people). It is not surprising then that nearly 30% of the population are estimated to live below the poverty line. Kinship networks in this ethnically relatively homogenous country provide a vital social safety network to those suffering the most from economic hardships.

Delivery of education services are affected by the low population density of 1.3

persons per km2, lack of paved roads (3%) and high level of nomadism (15% of population). Nearly 50% of the population is under 16 years of age and thus potential demand for educational services is unusually high. Past investments in education resulted in literacy levels averaging 95% for males and 90% for females. Nearly 700 free primary and secondary schools produce some 50,000 graduates of Grade 8 and 10 each year. Technical and professional centers located throughout the country enroll more than 400,000 individuals.

In light of this economic climate, then, it is not surprising to find that national spending on education has fallen from 10.2% of GDP to 5.3% since 1991, with other sectors including defense and health services taking even more drastic cuts. Rapid decentralization of government functions have occurred with the drastic budget cuts seen over the past few years. Unfortunately, the new responsibilities that have been thrust upon governors and aimag officials have not been accompanied by training in technical and management skills necessary to use scarce resources wisely and efficiently. Consequently, services have suffered not only in terms of quantity and investment, but have dropped in quality as well.

Under normal circumstances, high unemployment rates and a declining economy would lower the opportunity costs for families to keep their students in school. However, in the case of Mongolia, declining education budgets and rising costs for heating fuel for the school, books, and clothes has placed an intolerable fiscal burden on many parents. Increased demands for children's services at home because of the privatization of cattle herds (90% of all livestock passed into private hands during this period) has added value to child labor. As a result, the number of children who dropped out of primary school between 1990 and 1992 increased 500% to 72,000 students per year. In 1993, the number is estimated to have increased to over 100,000. The overall level of dropouts from primary school is now estimated to be in excess of 25% - a figure in stark contrast to the high level of performance characterizing the system in the prior decade.

The economic opportunity costs of attending school disproportionately affect male attendance. With each succeeding year in the primary cycle, dropouts increase faster for boys than for girls: boys comprise 45% of Grade 6 enrollment and 40% in Grade 8. Overall dropout rates in grades 1-10 in 1992 was estimated at 11.6 % with rates running to over 20% in three rural provinces and ranging between 15 and 19 in nine others.

Recommendations for USAID Assistance

1) Support for educational planners and ministry officials for long-term planning, educational finance, and educational testing and assessment;

2) Provide technical assistance to basic and secondary education in cooperation with the ADB in areas of USAID comparative advantage;

3) Provide training and assistance in financial and organizational structure issues related to transition from a centrally-controlled economy heavily dependent upon foreign subsidies to a free-market economy, including site visits and short-term, carefully selected internships in the region (Korea is an especially attractive site for cultural and historical reasons) and in the United States;

4) Support training and technical assistance in energy-related areas that are critical to continued economic development and the social welfare of the population.

E. Cambodia

In 1988 Cambodia was reported to have 8 million people and some estimates put the population growth rate at sixty per thousand, making it the highest in Asia. Almost 20 percent of the population is under five years of age, and nearly one-half are under 15. The adult literacy rate is 35% with a higher percentage located in the rural areas where 88% of the population resides. Child malnutrition is unusually high for the east Asia region and is estimated at 22 percent in Phnom Penh and 32 percent in the outlying provinces. The few available resources for education are being eroded by an annual inflation rate estimated to be between 250 and 340 percent in 1993. Only $19 million was spent by the government on the social sector in 1992, an average of less than $2 per capita. The budget for health and education combined was 25 percent of government spending in 1992 compared to 40 percent for defense. Educational expenditures alone run as high as 20 percent in many Asian countries.

Today the productive capacity of Cambodia is below the level that it was in the 1960s. The 1982 World Economic Survey estimated Cambodia's GNP at US $1.13 billion, equivalent to a per capita GNP of $160, ranking Cambodia 195th out of 203 countries. Since 1980 considerable attention has been focused on the eradication of illiteracy. Some 33,600 volunteers including monks, teachers, students and government workers have acted as volunteer teachers. In 1988, the government claimed that the national literacy rate for women between the ages of 13 and 40 was 93 percent. Other estimates more realistically put the figure at 70 percent.

During the Khmer Rouge regime, formal education was regarded as bourgeois and the principal source of class differentiation in the society. The production of books and reading material was banned and members of the former educated elite were converted into farmers, if they were not killed or imprisoned. After this period, the new Cambodian government completely reconstructed the education system despite a modest base of fiscal and human resources to draw upon. Free basic education was established as one of the first political goals of the post Khmer Rouge government.

Statistical data available for Cambodia are sparse and are of questionable validity. The primary enrollment rate is reported to be as high as 80%, but that would appear to be an over-estimation given the statistics for other countries in the region. Only 40 percent of children enrolled in the first grade complete primary school, with the highest rates in Phnom Penh and other urban areas. Although formal primary schooling is free, parents are expected to pay for books and writing materials and to make contributions for constructing and repairing schools. Consequently, the poorer economic situation in the rural areas results in higher dropout rates than found in urban areas. This is especially true for girls who, because of their value in working the fields, present parents with high opportunity costs. The urban-rural disparity is magnified at the lower and upper secondary level. Only sixty percent of the children who complete the first year of lower secondary are reported to continue on to the second year.

The system of educational administration is quite decentralized, following the general administrative pattern in the country. Local authorities have responsibility for opening and operating new schools and must raise their own funds for training teachers. At the secondary and tertiary level, system planning and teacher education (primarily at the Univ. of Phnom Penh) is centralized with decisions made at the provincial and national levels.

During the period following the change in government, an emergency teacher training and recruitment operation was initiated. Many primary teachers received only 45 days of training, but a regular in-service teacher training program has since been established with 25% of current primary and 40% of secondary teachers

exposed to the content of this upgrading scheme. No known indicators exist with which to evaluate the effectiveness of the training program.

A total of 30 textbooks (primary and secondary) have been issued covering all subjects. Cambodian Ministry officials appear to have made progress in eradicating the most egregious forms of ideological indoctrination from texts and have improved the pedagogical content of the books. However, the writers and editors are secondary school teachers, not professional writers and curriculum experts. Lacking adequate field testing, the books are reportedly difficult to follow and use by primary teachers. Some secondary teachers write and sell their own materials, ostensibly to improve the quality of teaching materials, but more probably to gain a modest supplement to their salary.

Six post-secondary institutions exist in Cambodia: The Univ. of Phnom Penh, The Higher Technical Institute of Soviet and Khmer Friendship, The Commercial Institute, The Agronomy Institute, The Institute of Medical Sciences, and the Fine Arts University. They may all be characterized as insufficiently equipped with teaching apparatus, and both the instructional facilities and instructional resources are outdated and in disrepair. The extermination of the country's most highly trained personnel by the Khmer Rouge has left higher education severely weakened and heavily dependent upon Vietnamese, Russian, German, and more recently, U.S. and Australian aid.

The transition from French to Khmer language begun in the 1970s, is incomplete. Few foreign terms are understood by Khmer-speaking youth, and even fewer are able to translate scientific and technical literature written in other languages into Khmer. Thus, language is an issue seriously impeding the development of higher education in Cambodia.

A national average of close to 90 percent of school age children are believed to be in school. There are significant variations in the enrollment rate by region. In Phnom Penh, 85-90 percent are believed to be enrolled, falling to 85-90 percent in provincial centers, declining further to 70-80 percent in district towns and bottoming at only 30-40 percent in geographically remote and minority areas. It is a national priority to eliminate existing educational disparities and to achieve universal primary enrollment. However, with an annual population growth rate of 3-4 percent this will not be easy.

Data, the reliability of which may be questioned, indicate that repeater and dropout rates, particularly among girls, are quite high. Repeater rates for grades 1 and 2 are 30 per cent each year, are 25 percent for grades 3-5 and are an additional 30 percent at the end of the fifth year. Dropout rates reported for 1988/89 average about 7 per cent per year. Approximately 65-70 percent of primary students manage to pass the primary school leaving exam. However, sixty percent of the total cohort passing the exam go no further than primary school. Average teacher salaries cover just about half the cost of a typical household's monthly rice supply.

The low quality and relevance of education, along with its high private cost and low levels of achievement has resulted in a slowdown in completion rates for both primary and secondary education. The achievement levels of high school graduates are known to be well below college admission standards, especially in science and mathematics.

The most urgent needs facing the MOE are:

- upgrading professional skills of teaching and administrative staff;
- modernization of equipment and teaching tools;

- development and production of quality instructional materials;
- rehabilitation of facilities.

Primary level education problems that are student performance related stem largely from the very limited contact hours available for instruction in school, shortage of classrooms and poor facilities, and high pupil-teacher ratios (42:1 average for the country) reflecting a shortage of teachers. The average number of pupils per available classroom is 53; in Phnom Penh classes often exceed 60 and some times reach 100 students. The Ministry does not have a coherent set of long-term strategic objectives and the administrative staff are technically quite weak. The MOE does not appear to be able to control effectively its own activities, let alone those of the donor community.

In 1990, the gross primary enrollment was 97 percent and the net ratio was estimated to be 64 percent. It is also estimated that fewer than 5 percent of students have textbooks; budget constraints in 1987 forced the government to discontinue the free supply of textbooks.

Donors

Three major donors have provided funding or are planning funding for basic human resource development projects in Cambodia. The Asian Development Bank has two projects under negotiation. Under one project the ADB plans to provide technical assistance to develop the educational management system and to train teachers. The second project will strengthen technical and vocational education. Total ADB assistance will be approximately $21 million. UNICEF is supporting a $13 million three-year project to develop curriculum, train teachers, publish and print books, and build capacity in primary education. USAID is currently preparing a project tentatively titled Primary Education Development with an estimated budget of approximately $30 million.

Recommendations for USAID Assistance

1) Technical assistance for improving the efficiency and quality of basic education, and to the equitable expansion of opportunities to the mountainous regions of the country and to girls in general;

2) Assistance for strengthening educational administration at all levels and for improving accountability within the system by enhancing curriculum, evaluation and testing;

3) Support for examining the link between post primary schooling and industrial development-basic data collection, planning and project design.

F. Burma

In 1987, General Ne Win publicly admitted that his government had made mistakes managing the country over the past 25 years in power. The country had gone from among the most developed of Southeast Asian nations after WWII to being declared a "Least Developed Country" by the U.N. in the Fall of 1987. Ne Win's admission signaled, to some at least, that change in Burma was possible.

Beginning in March of 1987 and continuing sporadically through 1988 university and high school students were at the forefront of anti-government protests. These were brutally resisted and finally crushed by the military. Thousands of students fled to border areas controlled by ethnic resistance groups or across borders, primarily into Thailand. Today, unofficial estimates of the number of

Burmese refugees (students and ethnic groups) in Thailand are as high as 350,000. In September of 1988, the military announced that it had taken power, and the country would be run by the State Law and Order Council (SLORC). SLORC agreed to hold democratic, multi-party national elections in 1990 but when the National League for Democracy led by Aung San Suu Kyi won 80% of the seats in Parliament, the SLORC regime failed to recognize the results of the election.

SLORC has introduced some economic reforms to permit private ownership, encourage foreign investment, and foster a market economy but the state has kept a monopoly of key industries and resources. The economy continues to be highly regulated, the currency is maintained at a totally unrealistic exchange rate, and inflation is high. Further, the brutal suppression of the pro-democracy movement from 1987 to the present, including the detention of political prisoners and the house arrest of Nobel Peace Prize Winner Aung San Suu Kyi, and the failure to turn over power to the democratically elected parties of the 1990 elections, have caused the international assistance community to shun Burma. Western nations including the U.S. have followed a policy of isolating the Burmese government while Burma's Asean neighbors including Thailand have advocated a policy of "constructive engagement". Most of the limited Official Development Assistance that has gone to Burma in the last few years has been directed to sectors other than the social sectors. Few NGOs work in Burma. Few funds in addition to government expenditures go to the education sector.

The economy has seen recent growth - 10.9% real GDP growth in 1992/93 and approximately 6% for 93/94 (although statistics from Burma are highly suspect). On the other hand, per capita GDP growth is slower because of the high population growth rate. Growth in employment over 1987-1992 is estimated at 0.8% annual average, much less than the population growth rate. There is high unemployment and underemployment throughout the country. Further, SLORC and the military have been condemned by the U.N. and NGO human rights organizations for human rights abuses including the use of torture and forced labor.

The country's infrastructure, both in terms of physical infrastructure and human resource development, are in desperate need of funds. Over the last 10 years government expenditures have decreased 11% in real terms. SLORC spends more on defense (35%) than education (19%) (1992/93) and over the past 10 years expenditures in basic education have contracted by 8.8% in real terms.

In 1992/93, there 5.919 million primary students including 967,050 repeaters. This represents a gross enrolment rate of 120% and a net enrolment rate of 76%. Four major groups of issues in Burma's primary education have been identified:

1. Access and Equity

While the ratio of primary schools to villages has increased from 1 in 3 in 1982 to 1 in 2 in 1993, there is only 72% enrollment for the first year of primary school. Only 1 in 3 finish 5 years of primary school. Female enrollment is roughly equal to males but reportedly declining. The private cost of primary education for uniforms, textbooks, school fees and the opportunity costs of education instead of income from child labor, favor more affluent families. The quality of education varies from community to community because of the important role of community contributions to education (see below). Primary completion rates vary considerably among states, e.g. 60% of the urban students in Chin State complete but just 38% of urban students in Rakhine State complete. Burma doesn't have a nonformal education program to reach school dropouts and illiterates. There was a successful literacy campaign between 1967 and 1987 but the lack of follow-up to maintain literacy and expand other life skills may mean the loss of most advances achieved during the program.

2. Internal Efficiency

Yearly drop out rates across the primary cycle average 12.7%. Forty percent of primary school children drop out prior to completing 3rd grade which raises the question of whether they retain literacy skills with so little education. The curriculum is also overloaded with subjects. Meanwhile, there is a very high rate of repetition and drop outs which increases the average completion time for primary school to 12.2 years. This, in turn, means the public cost of educating a primary school graduate increases to $37.10 rather than $15 (for 5 years of primary school).

3. Quality

While the number of primary schools has increased by 75% in 10 years, other inputs have not increased at the same rate which results in lower quality. Two out of three teachers are untrained. Only 4% of primary teachers get in-service training each year. Instruction is teacher centered rather than student centered, rote learning rather than problem solving. Annual examinations rather than continuous feedback lead to higher rates of repetition, dropouts, reduced efficiency. Supervision is inadequate, textbooks are lacking and are poor in quality.

4. Balance of Government and Community Resources

Public contribution to primary education is about 2% of GDP. This is low by international standards. Between 1990/91 and 1992/93 education expenditure declined by 20%. While the government pays for training some teachers, provides the curriculum, and pays most teachers' salaries, the community is responsible for most other aspects of primary education. Communities provide 95% of funds for capital construction. Recurrent unit costs per primary student were just US$3 in 1992/93. As stated earlier, Burma spends much more on defense than education which is contrary to the trends in most other (more economically dynamic) Southeast Asian countries.

Government Policy

The Burmese government has committed itself to achieving universalized primary education and to increasing the completion rate from 25% to 80% by the year 2000. However, it is unclear how it expects to achieve this objective given the level of public resources committed so far.

As part of their Education Sector Study (April 1993) UNESCO and the Ministry of Education have developed profiles for 28 education reform projects including 10 in basic education, 7 in technical, agricultural, and vocational education, 6 in higher education, and 5 in nonformal education. The 10 projects in basic education center on the issues previously discussed. UNESCO and the Ministry of Education intend to solicit funding from the donor community to support these projects.

Donors

UNICEF has committed approximately $5 million over 5 years (1991-1995) for three basic education projects: 1) an early childhood development project, 2) a primary education project designed to recommend policy changes and introduce a system of continuous assessment and progression, 3) a nonformal education project designed to experiment with a system of functional literacy for out of school youth, and

adult illiterates especially women. On the other hand, as stated earlier, Burma has been largely isolated from donor assistance for the past several years.

Recommendations for USAID Assistance

There are several high priority areas for reform in the Burmese education system. USAID might make a significant contribution in the following areas:

1) Curriculum reform at the primary and secondary levels to improve instruction in basic sciences (primary level), and science and technology at the secondary level. Also curriculum reforms at the primary and secondary levels aimed at practical, vocational preparation for life after school.

2) Pre-service teacher training to improve the professional standards of new teachers and in-service teacher training to overcome the current backlog of undertrained teachers.

3) Strengthening the design, production, and distribution infrastructure for textbooks so that materials are inexpensive and available for primary age children.

4) Social mobilization to increase the primary enrollment rate and level of community involvement.

5) Strengthening the management capabilities of the Ministry of Education including the development of research and evaluation capabilities, a management information system, personnel management, and planning. Also, strengthening district and school leadership through management training.

6) Introduction of nonformal education to give uneducated adults and school leavers a chance to continue their education and improve their occupational skills.

G. China

Because of the size and the complexity of China, and in light of the very low probability that RSM/EA or A.I.D. will make substantial investments in China, this section of the report focuses on the most general human resource development characteristics. Recommendations flow from the perception that investments would not likely exceed much more than $1 million annually.

With a land mass of 3.76 million square miles and a population of approximately 1.2 billion people, China's human resource needs are as vast and varied as its size and people. Through an aggressive birth control campaign, China's population growth rate has been reduced to 1.2%. Mass literacy campaigns initiated during and following the Cultural Revolution have given China a literacy rate of about 80 percent (estimated at 77% for ages 15+; 90% for ages 15-40). With a dozen cities with populations in excess of 2.3 million, and yet with a national urbanization rate of only 15 percent, the provision of education and training requires both massive urban infrastructure and extensive networks of resources for providing access to rural populations. Five main language groups make the provision of basic services even more complex.

China's major industries are agricultural and extractive in nature although there is a pronounced move towards light manufacturing and technology. Changes in leadership, new developments in the manufacturing and trade sectors, and improvements in external political linkages, especially within the Asian region have contributed to the growth of the economy at a current rate of about 8.5%

percent. The demand for semi- and skilled labor is expected to increase dramatically as a result of this economic expansion and increased consumer demand for technology-based goods and services.

Urban-rural differences and geographic disparities are two of the hallmark characteristics of human resource capacity in China. Disparities also exist by gender and nationality groupings. Urban literacy rates average 88 percent; rural rates are 73 percent. Literacy for males (15+) is 87 percent; for females, 68 percent.

Primary school net completion rates which stood at twenty percent in 1950 have increased to 98 percent today- a remarkable achievement given the magnitude of the population (nearly 124 million primary students versus 24 million in 1950). About 78 percent of primary school graduates enroll in lower secondary school. Schooling in rural areas is characterized by higher dropout and repetition rates in poor and remote areas: 93 percent primary completion rates in urban areas versus 65 percent in rural locales including "on-time" completion rates (in five years) of only 50 percent or less in the provinces of Ningxia, Guizhou, Gansu, and Jiangxi. Tibet is also at the lower end of this distribution with no specific data available. Other key problems facing both primary and secondary education in China include:

- insufficient number of school and administrative buildings-- estimates place the shortage at the primary and secondary level at 7.5 million square meters of classroom space with 4.5 million square meters of existing space considered to be unsafe;
- lack of teaching materials and basic equipment;
- shortage of qualified teachers (especially from among the ranks of 5.5 million primary teachers);
- low levels of student achievement, especially in poor and remote areas;
- resource inequity with advantages resting with urban areas;
- deficiencies in administrative skills and in operation of decentralized fiscal management structure.

The government policy of junior high school expansion has not had sufficient quality control mechanisms attached to it. The low level of qualifications of teachers are an important factor in the low level/decline of school quality. The percentage of **unqualified** teachers (by Chinese standards) by level is: primary, 44 percent; lower secondary, 79 percent; upper secondary, 60 percent; agricultural schools, 87 percent.

Post secondary education is also extremely complex. More than 1,000 post-secondary institutions exist with more than 2 million students enrolled. Complicating the picture is an even greater number of institutions for adult learners enrolled in education/extension courses, many offered through television. Development issues center on tradition-laden instructional ideologies, teaching styles and instructional content; policy and regulatory inefficiencies; and inadequately trained faculty, especially in technology-related fields.

Recommendations for USAID Assistance

As noted earlier, the investments that RSM/EA can make in China will be minuscule in comparison to need. The single most important contribution that can be made by A.I.D. to enhance HRD in China is the extension of invitations to carefully selected Chinese officials to attend regional and international conferences and seminars focused on education and training and capacity development issues. Bringing the Chinese into the international dialogue as involved partners will result in technology and management transfer. The IIE and DAI projects could

easily assemble an annual plan for training, conference participation, study tours and internships in sectors selected by RSM/EA.

Other carefully targeted investments with no long-term cost implications for USAID might include the following, most of which are in support of democratization-type activities that would have strong but indirect effects on human rights and related issues as well as on policy/equity/quality issues in the human resource development arena .

1. Training in Educational Administration/Finance

Effective school administration is the key to improving school quality and resulting student performance. Internships, study tours, short-term training opportunities and intensive leadership development and certification seminars can be offered to Chinese officials. If carefully constructed, with multiplier effects built into the design, the result could be a tangible, long-term improvement in the quality of educational services provided at a variety of levels in China. The expanded networks that would result from participation in international fora should also strengthen Chinese capacity to embark on more independently financed and managed education strengthening activities.

2. Cross-cultural training for government officials.

The Japanese government sends a large group of municipal employees to the United States each year through a joint program between the Japanese Intercultural Academy of Municipalities (JIAM) and IIE. The program consists of 3-6 weeks of presentations, lecturers, observations, sightseeing, homestays and other types of professional experiences. This carefully orchestrated, controlled activity has a profound influence on municipal workers perceptions of how local governments can operate. The training materials provided and the experiences accumulated during the relative short stay have a significant impact on traditional perceptions of how operations business and capacity development can and should be conducted. As in earlier examples, the effect is greater participation in decision-making and increased understanding of cross-cultural perspectives on generic problems. Training of this sort could further spur trade and development. A special focus could be placed on education policy implementation and administration.

3. Training in democratic legal principles.

Experience in Russia and Central Eastern Europe has shown that by making the legal process more transparent and hence more accessible to citizens, legal recourse increases in effectiveness and quality as well as accessibility. Training programs (in-country, as well as regional and in the U.S.) might focus on issues such as trial advocacy, jury training, paralegal internships, development of bar associations, etc. The purpose of these initiatives would be to bring about greater understanding of the legal process; democratization of the process would eventually lead to less subjectivity and greater participation in existing and strengthened legal structures.

4. Media Training.

Access to information and public analysis of programs and policies through public media is a key to the creation of participatory, democratic societies. By providing journalists and other media representatives exposure to the principles and activities of a free and independent press, public scrutiny of public and private sector programs, including those in education and human resource development, is encouraged and the quality of reporting and analysis is increased. Short-term regional training or U.S. based training/internship programs of 2-6 weeks to 4 months in length would address this need.

5. PVO-NGO Leadership Training.

Voluntary, non-profit organizations play critical roles in the provision of services and in serving as a check/alternative to public control of those services. Strong PVOs and NGOs encourage diversity and efficiency of programming and provide a check on inequities such as those that are gender and region-based. Leaders of those organizations are often business management individuals or technical leaders- rarely both. The integration of management and training skills can be achieved through carefully designed technical assistance, and by the creation of a linkage program between Chinese organizations and their counterparts in the U.S. Organizations such as the American Society of Association Executives can play a key role in providing development and resource assistance.

6. Economic Training for Non-economist Government Officials.

Few government officials understand the complexities of large budgets and the social implications of non-empirical decision-making. Training in applied economics, planning and policy options has a double effect: 1) it makes more transparent the rationale of (and subjectivity or objectivity) of policy formation and implementation; and 2) by rationalizing the decision-making process, at least in part, the process is left more open to examination and debate. In short it contributes to the democratization of decision-making. Short-term seminars, focused, applied internships and technical assistance could address this problem. RSM/EA could focus such an effort on human resource/training management issues.

IV. REGIONAL RECOMMENDATIONS

Because of the similarities in development needs among at least five of the seven RSM/EA countries, if not all of them, one investment approach is design an activity focused on improving the efficiency and quality of basic education that is regionally based. Each of the following interventions have several advantages over traditional bilateral, country-specific approaches to capacity building. They would:

- have a demonstrable impact on increasing the quality and quantity of individuals with basic education skills;
- be piggy-backed onto existing institutions thereby also increasing the likelihood of a sustainable effort following the discontinuance of USAID funding;
- be efficient in terms of cost because of their location within the region and in terms of the opportunity costs normally paid for longer-term U.S.-based training sites;
- be easily managed and supported through the two existing RSM/EA technical assistance and training projects;
- distribute resources throughout the region without placing additional responsibility on already over-burdened USAID staff;
- permit carry over of lessons learned and materials developed from one country to the next.

To improve basic education in the region, and along with it to reduce gender

inequities and geographic and ethnic disparities, training and technical assistance is needed in three areas of comparative USAID advantage:

1) policy analysis, assessment, resource allocation, and planning;

2) curriculum structure and reform, testing and measurement, and evaluation for accountability;

3) educational administration, especially school and district level management.

A. Policy and Planning.

All USAID-assisted countries in the region, but especially those in the pre-industrial category, need assistance in establishing priorities among their multiple investment needs, in allocating their scarce resources accordingly and for maximum impact, and in establishing realizable short-term targets and strategies for achieving medium to long-term objectives. Some of the skills required to perform these tasks will be developed through long-term technical training that will be provided under the auspices of multilateral projects. The ministries in greatest need of higher order planning and policy skills are, however, the same ones that can ill afford to have their staff reduced to ineffectiveness by the absence of key personnel for long periods of time. Short-term, regionally based training, organized in the form of inter-locked modules of two to three weeks in length, would reduce the indirect costs to the ministries of upgrading the skills of their staff.

Over the past decade, USAID has been a leader among the donor community in developing and promoting the use of tools that improve the efficiency of educational systems and which increase the ability of ministry staff to understand empirically and intuitively the cost-benefits of their policy decisions and resource allocation. The micro-computer based planning tools developed under the (now) Global Bureau's BRIDGES, IIES and ABEL projects have transformed the planning process and improved the coverage and quality of basic education, especially for girls in more than twenty countries around the world. The information and case examples that have been collected under these projects are an invaluable resource base for educational decision makers in the RSM countries.

Working in collaboration with ministry officials and in coordination with other donors, a coherent program of training and country-tailored technical assistance flowing from the training would be a very cost-effective way to have a direct and immediate impact on basic education in the region. For very little cost, existing tools and methodologies could be focused on the basic education issues of the region. The leverage that would be gained on improving access and equity through policy reform and resource reallocation would far outweigh any other direct form of investment that the RSM could make. By organizing the training in and through existing facilities, for example through the NEC in Bangkok, Innotech in Manila, or the University of Singapore, or USM Penang, long-term funding expectations for USAID would be minimized and the training capacity and technologies would be indiginized. Alternatively, a new training site could be developed within one of the target countries, such as Vietnam.

Through a combination of training and technical assistance, drawing largely upon existing tools and technologies, USAID could meet its own investment priorities in basic education and strengthen a critical area of need in those countries with lowest basic education enrollments. In doing so USAID would complement the work

of other donors, who would welcome the intervention.

B. Curriculum, Testing and Evaluation

The United States is an acknowledged world leader in the development of curricula that adhere to proven pedagogical principles, and which exhibit sensitivity to local community standards and expectations. In the testing arena, the United States has led the world in establishing standards of validity, relevancy and translation of findings into increased efficiencies and quality of educational services. Evaluation, through the modes of internal evaluations and use of external independent observers, could help to identify the critical weak points in the policy formation, long-term planning, and implementation of education and human resource development systems. USAID's comparative advantage lies in a decade of sophisticated research and analysis of policy options open to education planners and the costs and benefits associated with selecting specific policy alternatives.

With the exception of Thailand, each of the target countries suffers from an inadequate curriculum at the primary school level; all of the countries could profit from assistance at the secondary level. A regional curriculum center, developed perhaps in conjunction with evaluation and testing components would be of value to the ministries of each country for several reasons:

At the primary and secondary level, the core curriculum in reading, math and science has many common elements across countries. There exist pedagogical techniques for transmitting information and for developing skills of inquiry and analysis that have proven superiority over others. Few countries can afford the luxury of experimentation with curriculum development and teaching methods. A regional center would capitalize on the knowledge that USAID has developed over several decades of project work and would have an immediate impact in providing examples, technical assistance and design capabilities to curriculum development specialists. The centralized facility could also help to ensure that gender issues were appropriately and consistently addressed.

Educational testing is an area in which the United States has led the world. Local and national assessments of educational progress are important for analyzing the effectiveness and evenness of policy implementation, and for taking steps to address deficiencies in educational progress. This is especially true in identifying inequities in attainment or achievement that are geographic, ethnic or gender related. Over the past decade, USAID has employed evaluation as a basic ingredient in its education and human resource programs. With the skills and experience already at hand, and in conjunction with a highly qualified stable of institutions (ETS, ACT, IIE, ITB, etc.) that are experienced in testing, research and presentation and dissemination of findings to policy makers and program managers, USAID could have a dramatic impact on strengthening the quality of educational investments made in the region. There are a number of regional institutions, both academic and para-statal, in which such a center could be located.

C. Educational Management

There is a growing awareness that effective and informed educational management is the key to improving the quality of educational services. Research has repeatedly pointed to the ineffectiveness of educational investment that is not also accompanied by sound administration and oversight of those resources. Improving the quality of educational administration takes many forms in the East Asia region including:

- L training for policy analysts, financial planners, and evaluators at the national and regional level;
- L training and internships for school level administrators;
- L seminars and workshops and internships for university level deans and faculty administrators;
- L capacity development for private sector human resource managers;
- L design and implementation of corporate training and HRD activities.

A regional center could offer seminars and workshops for public and private sector education and HRD officials. This effort could be complemented by both region-based site visits to institutions that are already implementing effective programs and by internships that might be served in the United States that could be facilitated by the EARTP project. Experience has shown that study tours that are highly focused on the acquisition of practical skills, when coupled with access to follow-on TA and access to support resources are a highly effective mechanism for rapid skill development. The RSM/EA already has contractual mechanisms in place to facilitate this type of skill development.

The center could serve as :

- L a repository of testing materials that might be developed and employed throughout the region;
- L a centralized consulting facility for assistance in conducting both intra- and inter-country evaluations;
- L a site for applied seminars and workshops;
- L a technical service office that could supply country-specific technical assistance for both short-term and long-term activities;
- L a support vehicle for assistance in developing specialized skills such as desktop publishing, advanced graphics, database management, etc.

D. Regional HRD Fund

An additional area of potential regional investment for USAID capitalizes on the Agency's most proven form of investments over the history of its operations: U.S.-based training and technical assistance. A long-term regionally based training program should ensure that:

- training requests are demand driven;
- training opportunities are available to individuals from both the public and private sector;
- cost-sharing is employed whenever possible;
- newly acquired skills are applied immediately and concretely and in ways in which the impact on economic growth and efficiency is tangible in the short run;
- there are no capital cost commitments on the part of USAID for the provision of training itself;
- the impact is in the form of value-added skills and that the net effect of training is cumulative over the LOP;
- that a sufficient number of individuals are trained over time to form a necessary and sufficient cadre of technically skilled workers to effect significant economic change. Under USAID auspices a regional center could be supported that would help to cultivate skills in evaluation, focused on policy, instructional effectiveness and administration. Each of the

countries in the RSM/EA purview could benefit greatly from such a regional center.

In principle, RSM/EA could put contractual mechanisms in place to operate a regional HRD Center. The Center itself might differ in two important ways from the current bilateral format, with primary design and administrative responsibility resting with USAID missions or AID/REPs. First, the Center could be operated through a contractor which had sub-granting authority as long as the training activities were consistent with USAID priorities and political and funding considerations. This would remove much of the administrative burden from already hard-pressed USAID staff. Second, the Center might be funded through a long-term grant/endowment mechanism. Within most of the target countries, HRD development efforts will be a 5-15 year process, in the short-run. This is consistent with A.I.D.'s human resource development efforts and results in Indonesia, Korea, Malaysia and elsewhere in the region.

If for example, a $20 million commitment were made for the region on the assumption that only interest plus up to ten percent of capital could be drawn upon for the first ten years of the effort, followed by interest and the remaining principle for an additional ten years with the total used by the end of that time, the target countries would have a stable pool of resources upon which they could build some long-term development plans. Accountability for the resources and the burden of demonstrating accomplishments would rest with the recipient countries. The regional center described above could provide support to this process. Country officials would be assisted in their planning, management and implementation by current contractors.

E. Concluding Thoughts on the Regional Mandate

Reference has been made throughout this paper to the existing RSM/EA projects, the East Asia Technical Assistance Project and the East Asia Regional Training Project. They are valuable resources to the region and are currently underutilized. Both contracting organizations are capable of playing a larger, more directive role if requested to do so by the mission. Although USAID investment in human resource capacity development has traditionally focused on public sector institutions, public schools and universities, USAID can contribute much to economic growth in the target countries by targeting the private sector as well. If the examples of Hong Kong, Malaysia, Taiwan and Korea are generalizable to the rest of the East Asia region, the private sector will have to participate actively and aggressively in skill development if they are to make the complete transition to an industrial economy.

Technical skill development at the secondary and post-secondary level is critical to this transition. Support to both the government and private sector in assessing and developing these skills will not only hasten economic growth, it will also lay the groundwork for fuller economic cooperation between the recipient countries and the United States.

In short, RSM/EA's human resource capacity development efforts must focus primarily on the production of basic skills in the majority of the recipient countries as noted at some length earlier. However, care should be taken to establish a balanced portfolio of support that looks at the medium and longer-term human resource needs as well. By assisting these countries to assess priorities, to design and implement effective programs, by involving both Asia and U.S. private sector organizations, USAID can continue to be play a vital role in economic development throughout the region.