How Can MIT's Resources and Expertise Be Best Applied to Planning
Issues in the Philippines?

by

Rachelle M. Tayag

Suffolk University
B.S., Political Science, 1992

Submitted to the Department of
Urban Studies and Planning in Partial Fulfillment of
the Requirements for the Degree of

MASTER IN CITY PLANNING
at the
Massachusetts Institute of Technology

June 1997

© Rachelle M. Tayag 1997
All rights reserved

The author hereby grants to MIT the permission to reproduce and to distribute publicly
copies of the thesis document in whole or in part.

Signature of Author

Department of Urban Studies and Planning
May 22, 1997

Certified by

Professor of Architecture and Urban Planning
Thesis Supervisor

Accepted by

Associate Professor of Urban Studies and Planning
Chair, Master in City Planning Committee

JUN 25 1997
How Can MIT’s Resources and Expertise Be Best Applied to Planning Issues in the Philippines?

by

Rachelle M. Tayag

Submitted to the Department of Urban Studies and Planning on May 22, 1997 in Partial Fulfillment of the Requirements for the Degree of Master In City Planning

ABSTRACT

This thesis examines the collaborative efforts established by the Massachusetts Institute of Technology (MIT) for Taiwan, Thailand, and other developing areas. It analyzes the transfer, the exchange of technological, educational, managerial, and planning resources and expertise from within MIT to the given areas. Lessons from the cases are taken to address the question “How Can MIT’s Resources and Expertise Be Best Applied to Planning Issues in the Philippines?”. A case study approach is used to probe into the core of: (a) the Epoch Foundation (Taiwan); (b) the Suksapattana Foundation (Thailand); and the Special Program of Urban and Regional Studies (SPURS: Developing Areas). Considering analysis of the case studies, a model is proposed for future collaboration between the Philippines and MIT.

Thesis Supervisor: Professor John de Monchaux

Thesis Readers: Senior Lecturer Dennis Frenchman
Professor Paul Smoke
Table of Contents

How Can MIT's Resources and Expertise Be Best Applied to Planning Issues in the Philippines?

ABSTRACT

Chapter One
Introduction 5
Issues in Development 9
International Application of MIT's expertise 22

Chapter Two
Presentation of Case Studies 28
Analysis of Cases 43

Chapter Three
Conclusion: 48
Lessons for the Philippines

Appendices
Interviews 54
Definition of Terms 57
MIT Centers, Laboratories and Programs 59

Bibliography 62
I would like to thank my advisor, John de Monchaux, for his tireless efforts, and my readers, Dennis Frenchmen and Paul Smoke, for their assistance in the preparation of this thesis.

The knowledge acquired from professors from the Institute is immeasurable. The camaraderie shared with fellow classmates in the Department of Urban Studies and Planning (DUSP) is unforgettable. The SPURS office, specially Nimfa de Leon, has contributed much to my time and education within DUSP and MIT.

I am thankful to Senior Associate Dean Alan White of the Sloan School and Ms. Anddie Chan of the Office of Corporate Relations for always encouraging me to make this thesis into a reality.

The support, understanding and care given by friends outside MIT have kept me sane through all the pressures and the demands of academic rigors. Lastly, I would like to acknowledge specially those who always keep their beliefs, hopes, and dreams in their hearts. To know that fear is something that we all must face in order to go beyond it.
Chapter One

"Tell me, I forget; Show me, I remember; Involve me, I understand."

- Japanese Proverb

I. Introduction

Development is recognized as raising living standards for a given society. "World Development Indicators starts from the premise that development is about the quality of life...with a global population of nearly 6 billion, there are now twice as many people as there were in 1970 the next 35 years will add another 2.5 billion, 90 percent in developing countries."¹ How to provide an adequate infrastructure system for the basic service for the current 6 billion people? This question is the focus of planning strategies of international development groups. There is no doubt that effective planning takes center stage of any development processes, especially those in developing countries. Planning not only address quality of life but also the economics of society. The innovation of communication and transportation technology adds insights to the "how and what" of the development process. At the same moment, this new innovation has made the global economy more competitive with developing countries in the center of this global economics.

The cities are the economic pulse of developing society. “Despite the staggering problems cities face in developing countries, more than half of overall gross domestic product (GDP) now originates in cities, even though urban populations are less than half of overall national population.”² Therefore, it is crucial that there are effective and efficient planning strategies for the present and anticipated urban and infrastructure

issues. "Many studies ...show that infrastructure variables are positively and significantly correlated with growth in developing countries." Tokyo, Hong Kong, and Singapore are examples of having efficient urban planning. Their governments are aware that to be competitive in the global economy, government should assume a leadership role in addressing its nation’s planning issues. Further, they emphasize the advancement and innovation of local resources and capital as the core of its infrastructure planning. The key being the building of an infrastructure system whose foundation is knowledge and technology. All three governments: Japanese, Hong Kong, and Singapore realizes the importance of the cooperation amongst the academic, private and public sector in developing technological innovation.

This thesis examines the collaboration efforts of foreign private consortiums and public agencies with to the Massachusetts Institute of Technology (MIT) to link (urban and national) planning theory with practice. More precisely, the analysis of the programs established by the Massachusetts Institute of Technology (MIT) for Taiwan, Thailand, and developing areas to examine the transfer, the exchange of technological, educational, managerial, and planning resources and expertise within MIT to the given areas in the context of a proposed model for the Philippines. Lessons from the cases are taken to address "How can MIT’s resources and expertise be best applied to Planning Issues in the Philippines?".

A case study approach is taken to probe into the core of programs such as MIT’s:

- The Epoch Foundation is an organization that serves as a link between Taiwan industry and MIT since 1989 with an endowment fund of $10M.
- Suksapattana Foundation is a Thai private and public partnership collaboration effort with MIT to promote Thailand’s human resource capacity building.

---

Special Program of Urban and Regional Studies (SPURS) for developing areas is designed to bring together mid careers to MIT to enhance their training in planning, policy, and/or design areas.

The basis of these linkage programs is issue driven from MIT and resource gap and/or need from the country/region. Further, the history of the establishment of these programs gives insight to the how MIT operates. The most important is faculty interest and involvement. To solicit such interest, the interested party should recognize that faculty interest derives from academic challenge. If a faculty involvement is solicited then a collaboration can take shape with MIT offering resources and expertise in areas such as: (i.) academic programs; (ii.) research programs; (iii.) institutional building; (iv.) industrial and governmental collaborations and linkages. Third is the ability to “sort through” the availability of resources and expertise within MIT to define “what” to the need and/or gap of the given country. Fourth is the gathering of financial and personal commitment to support the activities and programs of linkage with MIT.

For the Philippines to take advantage of any collaboration with MIT, there must an assimilation of its national vision and priority with the resources and expertise within MIT. A leadership role must be undertaken by an influential personality either in the Philippines private or public sector to make the collaboration a reality. A “championship team” must be formed from the Philippine side, then MIT. Within MIT, this can only be achieve once the priority is made clear.

The Philippines has a history of “(most of) its infrastructure facilities provided by the government, and foreign participation tended to be excluded, resulting in monopolies and an absence of pressure to be innovative and efficient.”

---


4 Term borrowed from Professor Lester Thurow, Dean Alan White, and Tom Moebus.

5 Taken from the proceedings of the November 1996 Asia Pacific Economic Cooperation Summit, Manila, Philippines.
this, it is the planning sector of the Philippines that is given the precedence in this paper. MIT’s innovative and progressive reputation in the planning field is internationally recognized. The resources and experts within MIT’s School of Architecture and Planning could stimulate energies to address Philippines planning issues in the context of a broader planning question in the academia and developing society. Success would be measured by the abilities of how MIT can generate, cultivate, train, and establish a “home grown” resource and expertise for the client/country to address its current and future planning concerns.
II. **Issues in Development**

a. **Development:**

There are two influential factors in the analysis of socio-economic development: post-colonialism and World War II. After World War II, the geo-political situation has transferred from colonialism to East and West. Post-colonialism afforded these newly independent countries control of their resources. No longer were they influenced and accountable to their "mother" country and the private sector she had established. With the establishment of its own political structure and organization, these newly independent countries "nationalized" their sector that were crucial to the country's socio-economic development (such as water, power, transport, etc.). Thus, the influential hand of the private sector in national development was transferred to the State. Post-colonialism and the Cold War witness the interrelation of countries and economies. "While change has been generally positive for developing countries, the disappearance of cold war tension's, the eclipse of former world powers, and the emergence of financial constraints and donor fatigue in developing countries have led to diminution and hardening of external aid flows."\(^6\)

It is because of this transformation that States have focused on being more competitive and have developed a competitive advantage strategy. With emphasis on economics and markets, states become the gatekeeper of how competitive its people, nation will be in relation to other nations, economies. "Two principal issues in economic development today are: (a) the degree and kind of openness to the world economy a developing country should see; and (b) what should the government do, or not do, in order to promote fast economic and industrial development."\(^7\)

---


Taiwan, Korea and Singapore continue to build an institutional framework to adjust with the changes in the international socio-economics. Their formula of structural adjustment has included them in the East Asia Miracle. It is not a formula that would become a model since it is based on their own experience and history and audit of their own needs and resources. In contrast, the majority of developing economies have relied on the World Bank and other international lending and aid agencies for formulae of structural adjustment. The core of these formulae has been the given economy’s natural resource and reserve. The 21st Century has and shall witness the following structural changes: (i.) the end of communism; (ii.) the shift from natural resource base to brain/knowledge base resource; (iii.) the advancement of transportation and communication and its enormous impact on the global economy; (iv.) the shift in the demography to favor elderly; and (v.) the lack of a dominant Nation which makes the global play unspecified. 

There is no set standard for effective measure of development success. “Development is multidimensional process, within which price reforms, investment, and institutional building are complementary.”9 At the center of the process is the nation’s planning strategy towards a better living standard for its populace. Economies such as Singapore, Taiwan, and Hong Kong are seen to have achieved this challenge by their assertion of a strong planning emphasis especially geared towards its infrastructure. The other feature of their planning strategy is their ability to take outside resources and expertise to cultivate their own resource and expertise to better understand and address planning concerns in relation to their economic stability and growth.

---

8 Taken from the February 18, 1997 SPURS Luncheon given by Professor Lester Thurow.
The World Bank continues to play a crucial role in the socio-economic process development of developing countries. The essence of their lending policy to its client/country’s, especially the developing economies, is the borrowers’ commitment to the Bank’s development view based on a market friendly approach. The Bank recognizes “the increasing integration of developing countries into the global economy represents a major—perhaps the most important—opportunity for raising the welfare of both developing and industrial countries over the long term.”

To sustain rapid, socially responsible and quality development, the World Bank’s six areas of policy and institutional development promote (a) provision of infrastructure; (b) State enterprise reform and financial sector development; (c) poverty and income distribution; (d) managing labor upgrading; (e) social insurance; and (f) the environment. The majority of its financial assistance and loans towards technical assistance. “Technical Assistance (TA) is an important ingredient in the Bank’s menu of operational activities. It provides the resources and expertise countries need to build up institutional critical for development success.” In 1995, the World Bank funding for technical assistance totaled at $1.9 billion.

The technocrats are usually from the academic stocks of the United States and Western Europe. Usually, the past technocrats have left very little to advocate cultivation of local talents and expertise in the areas of planning. “Most of the time, the ones who benefit most are the foreigners (e.g. Peace Corp volunteers). The method of traditional foreign assistance to development has found many flaws. Namely, the foreign team’s inability to translate the foreign development formulas to local concerns and resources.” In many cases, there is a gap between the foreign assistance’s “perceived” issue and solutions. The center of this gap is between the provided resource and expertise and the “real, not stated” country/economy need.


12 Taken from an interview with Dean Alan White of the Sloan School, March 14, 1997.
It is no surprise that planning policies have relied on foreign formulas without or with very little local consultation. A great bias has been created towards foreign experts. The involvement of foreign academic institutions in the developing country’s planning continues to increase through international programs/exchanges. Academia has realized the importance of international institutional collaboration and international research. All income economies have recognized the importance of such collaborations. For the most advanced economy, it provides a rich source of academic research. For the less developed, it is a way to bring receive expertise and resources otherwise unavailable to them to better address their own development process and approach.

Development Process/ Appraisal

Flow Chart\(^{13}\) of a given Organization or Country

---

\(^{13}\) As drawn out by Professor John de Monchaux
b. Asia and the Philippines

i. Asia

Asia as the fastest growing region in the world has been keen on physical planning in relation to economic growth. It has been perceived that planning and economic growth goes hand and hand. This has been evident in cases such as Singapore, Hong Kong, and South Korea. Yet, each country must be able to identify its national vision to be able to address its development issues through its planning strategy. “In East Asia the road to NIChood that has been much traveled in our time has three components: political authoritarianism, an outward looking, export economy and intelligent state interventionism. It is this combination that produced the East Asian ‘economic miracle’.”14 It has been through a country’s vision that its planning issues are identified. Development has been the overall goal. But its vision has been the key towards effective and sustainable planning for any country. It has been crucial to identify the national vision for a national plan to be formulated. For the East Asian miracle economies, it is economic growth with the three mentioned components and at price of democracy.

Planning issues have ranged from economic to social to physical. Developing countries have recognized that planning policies are core to the development of a given country. Planning policies are not isolated. Rather, they are connected like a piece of a whole. It cannot be viewed as physical and abstract. Economic growth must be linked with physical planning. It must be realized that the core of any developing economies has been its way of addressing its planning issues. It must be taken into account that planning issues range from national economic formulas and policies to physical planning

to infrastructure elements (such as utilities and transportation) to urban and regional land use. All these factors are interrelated in a growing economy of a given country.

"The real income gap between the industrial countries and some developing countries, notably those in East Asia, has narrowed dramatically since World War II."15 “Those” are the East Asian Tigers, who have spurred the East Asia Miracle, namely the economies of Singapore, Taiwan, South Korea, Japan, and Hong Kong. The center of their economic growth and social stability is their effective planning strategies. While the measure of the government’s hand in the development process differs for each economy, what is common is its government’s ability to create an environment that is competitive. These states realize the goal to be competitive pushes them to have a viable, efficient, effective infrastructure system to compliment its economy and social state. As earlier stated, the global economies are interrelated. “When East Asia’s exports grow, so do its imports. Although East Asia (outside Japan) accounts for only about 8% of global GDP, it already attracts 17% of world imports, and is expected to provide 20% of world output growth and more than a quarter of growth in global imports in the remainder of this decade.”16 What keeps the East Asian economies competitive? One answer lies in their governments’ ability to link national socio-economic vision to their planning strategy. Planning centers on human capital, technological innovation and infrastructure efficiency and effectiveness. “The World Bank estimates that the investment in infrastructure for East Asian developing economies alone will be in the order of US$1.5 trillion for the period 1995-2005.”17


17 Press Release from the November 1996 Asia Pacific Economic Cooperation Summit, Manila, Philippines.
More and more, there is an emphasis of regional ties. For example, in the November 1996 Asia Pacific Economic Cooperation Summit, the following programs and frameworks were initiated by the member economies\textsuperscript{18} to strengthening economic and technical cooperation:\textsuperscript{19}

- Adoption of the Manila Declaration on an Asia-Pacific Economic Cooperation Framework, which provides a framework to articulate the goals, guiding principles and themes in key areas of APEC economic and technical cooperation;
- Integrating Sustainable Development Across APEC’s Work Program is a compilation of policies and practices for sustainable development;
- Adoption of the Seoul Declaration on Science and Technology Cooperation\textsuperscript{20};
- Establishment of Labor Market Information (LMI) Framework to address Human Resource Development (HRD) which promotes joint researches, policy dialogues, exchange of officials and experts, and establishment of an LMI database;
- Establishment of APEC Center for Technology Exchange and Training of Small and Medium Enterprises (SCTETSME) in the Philippines to foster and promote entrepreneurship and SME training in the region;
- Adoption of the APEC Economic Infrastructure Action Program responding to the enormous infrastructure needs of APEC economies;

\textsuperscript{18} APEC members are Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papa New Guinea, Philippines, Singapore, Chinese Taipei, Thailand, and United States.

\textsuperscript{19} Highlights from the Manila Action Plan for APEC (MAPA), November 1996 Asia Pacific Economic Cooperation Summit, Manila, Philippines.

\textsuperscript{20} The Seoul Declaration on Science and Technology Cooperation was from the Second APEC Ministers Conference on Regional Science and Technology Cooperation. It sets its goal for “enhancing the creativity and mobility of scientific and technical men and women across regional economies in order to realize the vision of a community of Asia Pacific as a center of gravity of world economic growth.”
• Setting Up the APEC Educational Foundation to support activities which links economic enterprises and academic institutions for collaborative undertakings;
• Establishment of Asia Pacific Energy Research Center (APERC), which focus on the development of a regional energy outlook and research.

The APEC Summit clearly states important link between infrastructure planning and economic growth. The focus of collaboration amongst members and their private and public sector is clear as well as the significance of the academic sector in the planning and implementing of the mentioned activities. It is apparent that there is a need to address the infrastructure and planning issues within each member economy. This need is fueled by the accepted correlation between economic growth and effective planning. While the Philippines is not alone in its neglect of its planning issue, it is only timely that President Ramos enthusiastically promote the participation of the private sector in the nation’s planning process through privatization of its national industry such as utilities, road construction, low income housing, etc.

According to the World Bank’s Major World Bank Programs 1996 Regional Perspective:

East Asia and the Pacific is a region of spectacular development success and huge development challenges. In 1995, the region outperformed other developing regions again and posted the most rapid growth rate in the world: 9.2 percent...The region is faced with many development challenges as it moves toward the Twenty-first Century. Despite huge successes, it is still, on average, a low-income region with an estimated per capita gross national product of $940. Eighty percent of its people, about 1.3 billion, live in low income countries. Reducing poverty and developing the institutions for market economy are the primary challenges facing these countries. Throughout the region, rapid growth and urbanization are placing heavy pressures on infrastructure, and environmental degradation threatens to undermine the hard-fought gains made to date.
ii. The Philippines

The Philippines with its population growing at the rate of 5% per annum has been in need of implementing socially conscious physical planning. Since the Philippines has of its “most infrastructure facilities ..(resulted) in monopolies and an absence of pressure to be innovative and efficient.”\textsuperscript{21} Public and social welfare has been taken for granted. No longer can the private sector detach itself from public issues of roads, telecommunications, and circulation as it is having an effect on the growth of the economy. Such issues can no longer be handled by the government alone. In order for the Philippines to sustain its competitive advantage, there is a need for the private and public sector to work together, especially in the infrastructure sector. Professor Tereso Tullao, Jr. of the Philippines De La Salle University points out...

“There is a need for our (the Philippines) infrastructure including energy, network of communication and transportation to be expanded, improved and developed in order to be ready for foreign investment and technology. We are all aware of what happened to the Philippines in 1993 when key sectors of the economy were paralyzed by daily blackouts...Another problem confronting the state of infrastructure is the need to improve the communication services... the need for efficient means of land, water and air transportation to link various islands and regions. Because of the inadequacy of the government to fund public services, there is a need to build and expand the state of hard infrastructure through BOT (Build-Operate and Transfer) and other schemes.

To be able to support the current economic spoils, the Philippines must fast track its infrastructure planning. There has been an urgent call for major investment and cooperation between the public and private sector. Philippine Secretary of Finance Robert F. de Ocampo recently stated during his speech at the October 1996 Fletcher School Conference:

\textsuperscript{21}Press Release from the November 1996 Asia Pacific Economic Cooperation Summit, Manila, Philippines.
Under the leadership of President Ramos, we (the Philippines) opened the economy by setting aside decades-old laws and regulations that fostered monopoly and protectionism and, instead we (the Philippines) put in place outward-looking and investor friendly economic policies. As a result, we have set a growth pattern far from the boom-and-bust cycle that characterized the Philippine economy in the 1980’s and in the early 1990’s. In 1994, real GNP in real terms grew by 5.3 percent; inflation was controlled to a single digit level of 9 percent; interest rates significantly dropped beyond our expectations; foreign equity and portfolio investments poured in; the stock market was a star performer among the emerging markets; and, for the first time in 20 years, we attained a budget surplus.

This momentum of economic growth is achieved with the assistance of the private sector. President Ramos has emphasized over and over that national planning is the task of both the public and private sector. The Philippines has taken the notion of public-private partnership in privatization of its infrastructure redevelopment. The World Bank has acknowledged its effort in its privatization procedure. But has it thought of the future social implication? What is the financial implication for the majority when it comes to privatization of its basic service?

President Fidel Ramos has promoted and encouraged the National Vision of the Philippines being able to reach the Newly Industrialized Country (NIC) status by the year 2000. To do so, the Philippines must spend $48 billion in infrastructure spending between 1995-2004. On November 26, 1996 the World Bank approved loans totaling US$281 million for four projects benefiting the Philippine infrastructure, education, agriculture sectors, which will contribute to the Philippines national vision and

---

22 President Ramos’ National Promotion of Filipinos 2000 Campaign.
23 Press Release from the November 1996 Asia Pacific Economic Cooperation Summit, Manila, Philippines.
planning strategy. It is noted by the World Bank that there is a need for the Philippines to “implement...strategy through institutional capacity strengthening.”\textsuperscript{25} in its education system; to develop a “coherent strategy and policy framework to improve water resources development, planning, and management”\textsuperscript{26} and the need to structure a program that shall address the base of technical knowledge training and physical infrastructure investment.

For the Philippines to remain competitive, the government with the private sector must initiate programs that shall generate local resource and expertise in all sectors. One of the components to South Korea, Japan, Taiwan, Singapore, and Hong Kong’s success is their ability to upgrade their human skills in order to move their economy into the next level of industrialization. They are “learners”\textsuperscript{27} in the late industrialization period. In the case of Japan, both the Japanese public and private sector encourages and promotes partnerships, collaborations with international academic institutions, namely the Massachusetts Institute of Technology (MIT), Harvard University, and Stanford University. The MIT-Japan Program is the largest, most comprehensive and most widely copied center of applied Japanese studies in the United States. It supports a variety of Japan-related research projects on Japanese technology, and sponsors frequent workshops and symposia.\textsuperscript{28}

The Philippines should take the lessons of the Japan, South Korea, Taiwan, and Singapore by cultivation of its local talents to advance its human skills through such partnerships. Establishing such partnerships has been both trying and challenging but the reward is immeasurable. To heavily and constantly rely on foreign assistance, technology and expertise would become too costly, economically, socially, and

\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid.
\textsuperscript{27} Alice Amsden, Takashi Hikino. The NICS and The LDCs “Staying Behind, Stumbling Back, Sneaking Up, Soaring Ahead: Late Industrialization in Historical Perspective.”
\textsuperscript{28} MIT Center for International Studies: Programs 1996-1997 Brochure.
politically. "The World Development Indicators is an excellent example of global partnership in creating and sharing knowledge and in making knowledge a major force in development." says World Bank President James D. Wolfensohn

This study focuses on the lessons which can be taken from the previous MIT connections with emerging economies and its planning strategies. It looks into why MIT and how MIT can assist in the Philippines development process in regards to its planning issue and strategy. It recognizes that there is no set formula for solutions and implementations regarding planning. Rather, it focuses on the organization, the issues, and the education of establishing a mechanism which will assist the Philippines in its planning process.

The key to any development of any collaboration with MIT is faculty involvement. If a faculty member is to take interest in such a project, there must be adequate personal and financial support for such collaborative activities. For the Philippines, any programs developed must be sustained even after MIT leaves the country. For MIT, it must have autonomy from national and local politics. For the program to be effective, organization and the means of any collaboration is key to its defining a vision. For this study, the focus of a possible collaboration takes into account the planning issues faced by the Philippines and the affect of its economic growth.

The needs of the Philippines must be identified in regards to the availability of MIT’s resources and expertise. Identification of the immediate and long term issues should be distinguish. While each country has its local issues, there are concerns that are universal in the region and in any developing society. How these concerns are addressed should differ as each society differs. Within Asia, Thailand, Malaysia, and the Philippines share the immediate problems that plague their urban and regional areas, namely: (i.) low income housing; (ii.) congestion; and (iii.) urban and rural poverty. The

---

approach to such issues should take into consideration the social, economic, and political implications. It must be understood that the approach taken in addressing the concerns will define the long term issue for each country. At the center of the approach is local capacity to address future planning issues which developing societies will encounter, namely: upgrading of human skills, technological innovations, and increase in standard of living.

For the Philippines, its continued growth does not seem slowdown. Therefore, both the public and private sector must recognize the need to address the given concerns academically and practically. If not, the Philippines may repeat its mistakes of previous past regarding its infrastructure and physical planning. With so much enthusiasm for its economic growth, there is neglect of the obvious and continuing urban poverty. The social and educational aspect is at times overlooked in the midst of the Philippines economic boom. "It is estimated that nearly 40 percent of the urban population lives in slum and squatter communities and this is significantly more than international average for countries with equivalent GDP per capita."  

For the Philippines to reap the benefits of a vibrant Asia and the Pacific region will not only depend on what we (the Philippines) are doing with our infrastructure but also on the expansion of our human resources and the improvement of technology through research and development (R&D). There is a need to invest in human capital, research and development and not only in hard infrastructure for these factors have been empirically verified as major resources of growth in newly industrializing economies. It is only appropriate that the Philippines look towards a university in achieving its

---

human capability. The University of the Philippines has the School of Urban and Regional Planning (SURP), which services the both the country’s public and private sector in the field of planning. SURP has only twenty (20) full time faculty and three (3) part-time. For a growing economy with emphasis on urban and regional planning, the Philippines has limited resources and expertise to address current and future planning concerns. An MIT link could only benefit the Philippines. The momentum for such collaborations are encouraged as stated in the APEC Summit MAPA (see page 15 under APEC Educational Foundation).

Within MIT, it is the School of Architecture and Planning which has the appropriate resource and expertise to address the immediate issue. The School of Architecture and Planning (SAP) consist of the Department of Architecture, Department of Planning, the Center of Real Estate, and the Media Lab. The resource and expertise within SAP address the Philippine issue on infrastructure and human capability. The Department of Urban Studies and Planning has an on-going technical assistance link with the World Bank which has assured its reputation of having preeminent resources and expertise in international development and planning. Policies and methods it has developed and recommended center on MIT’s principle of the connection between practice and theory. A collaborative effort with a local university such as the University of the Philippines (the only one in the nation which has School of Urban and Regional Planning) would better enhance the approaches and methodology that the Philippines would have to take and to consider. It is imperative that institutional building be the center of any collaborations between the Philippines and the School of Architecture and Planning.

III. International Application of MIT’s expertise

a. Principles
MIT has a renowned reputation for technology, expertise, and resources in technological research and development. This reputation also extends to its expertise in addressing and application of its resources to the issues of planning and development. MIT has a strong tradition of practice of its theories. More than any other institution, it has prided itself with the “tradition of cooperation closely with industry. The exchange of people and ideas between the Institute and the business community has inspired curricular innovations in a range of disciples. These innovations have in turn helped generations of MIT graduates make major contributions in industry, government and academia, and have led to a stream of research advances.”33 It is no surprise that numerous members of the industry and nations seek MIT’s resources and expertise to assist in their development process which centers on research and development.

To remain a premier institution requires that MIT be thoroughly engaged in international activities in science and technology. MIT’s Faculty Policy Committee (FPC) states that “in response to the growing number of opportunities for international initiative at MIT and community views that MIT should consider international institutional collaboration and international research support from alumni, foreign governments, and multi-national firms...participation in international projects; traditional faculty research; specialized training of foreign scholars in sharply defined, product-oriented programs; specialized training program for international executives, possibly through distance learning; and MIT-conducted research for international companies (similar to the Industrial Liaison Program arrangements with U.S. companies).”34

The four areas of MIT’s involvement are (a.) academic programs; (b) research programs; (c) institutional building; and (d) industrial and governmental collaborations and linkages. Its international relations fall under: (i.) international students, alumni, and

33 About MIT brochure
34 MIT Reports to the President 1995-1996.
faculty; (ii.) access to research at MIT; (iii.) cooperation with institutions in other
countries; and (iv.) public service and other programs.

The general principles of MIT’s involvement in any international project
includes...

1. MIT is a research university committed to fostering education and
advancing knowledge for the betterment of human conditions. It is, at the
same time, a national institution rooted in American culture and traditions
and integral part of the nation's education and research system.

2. MIT’s responsibility to the nation in which it was founded and
nurtured is served first and foremost by the maintenance of its position as a
premier institution in education and research in science and technology.

3. In the resolution of major conflicts between MIT’s national and
international roles, the Administration, with the advice of the Faculty should
give primary weight to the general responsibility to the nation.

4. The traditional commitment of MIT to the transfer of knowledge to
the community at large should be intensified, with expanded emphasis on
the ways the Institute can contribute to the health of American industry and
the US economy.

5. The Institute depends on adequate resources to carry out its activities
and execute its programs, but conditions under which those are obtained
must be consistent with these principles.35

b. Linkages within MIT

i. Vehicle of Linkages

35 The International Relationships of MIT in a Technologically Competitive
Relations of MIT.
Vehicle of linkages could take the form of a program, center, and foundations. An example is MIT's Center for International Studies. This center is established as a major research center “for the study of political and economic development, international security, international communications, and communist studies.”\textsuperscript{36} Within the Center are: The Defense and Arms Control Studies Program; The MIT Post-Soviet Security Project; The MIT Japan Program; Seminar XXI; Program on Environmental Studies; The Program in Development Studies; Women and International Development; and CIS Visiting Scholars. Without academic and research issue involve, it would be difficult to generate any interest from the faculty. And without personal and financial commitment from individuals or group, it would be difficult to establish such a link. In the case of the Center for International Studies, the Center hosts numerous programs that has captured the interest and the commitment of persons within and outside MIT.

This study analyzes two foundations: EPOCH and Suksapattanna; and one program: the SPURS. The three have been chosen due to its relevance to the development process of developing society. While there are numerous MIT links that would serve as an example for the Philippines, the three case studies given addressed issues that could relate to the development process the Philippines is undergoing at the moment.

ii. Identification “client’s needs/gap”

There are numerous countries, corporations, and individuals that seek MIT’s assistance in the development process of its resources, expertise, and product. What is taken for granted is MIT’s capability to assist. It is often overlooked that there might not be appropriate resources or persons that could best apply to a given need/gap. For example, Cambodia needs to find alternative ways to address its agriculture technology. Within MIT, there is may not be appropriate resource and expertise which can assist

\textsuperscript{36} MIT Center for International Studies Programs 1996-1997 Brochure.
Cambodia with “need.” Another example is the Management of Technology Program for the Philippines. Professor Thurow had been advised an interested MIT alumna Bernardo Borromeo that MIT’s Management of Technology Program may be too advanced for the available technology in the Philippines. To introduce such program, the Philippines must first upgrade its technology in manufacturing. The industry there is not as advanced as Taiwan’s. In the case of Taiwan, its technological innovation is in need of assistance in its management. Since MIT’s Sloan Management of Technology Program has such resources and expertise, it is only fitting that MIT can develop such a link with the Taiwanese private sector. The result a $10 million endowment funded EPOCH Foundation. The key figure is Sloan’s Professor Lester Thurow. By Sloan’s establishment of such a program, its students and faculty will have the opportunity to partake in the link between theory and practice in a fairly new field of management of technology.

The recent collaboration with Malaysia applies MIT’s resources and expertise to Malaysia’s need for a preeminent Science and Technology University. The “goal is to create an elite private teaching and research university...that will promote science, engineering and technology...MIT will provide the expertise in four key areas: academic program; research agenda; institutional development, focusing on administration, organization management and financing; and forming partnerships with government and industry.” What is common in MIT’s international collaboration is its attempt to link industry and government. The Malaysia connection will come in form of Ehsan Foundation. It has recognized the importance of translating its academic recommendations to practice. It is this philosophy that has given MIT an edge in its collaborative efforts. In regards to the Philippines, if it were to pursue a link with MIT,

an emphasis of private and public sector cooperation would be appropriate to ensure interest and commitment from both side.
Chapter Two

I. Presentation of Case Studies
   a. Identification of the Gap, the Need Issue

   Identification and Match Chart

   NO MATCH
   Due either to MIT's lack of appropriate resources/expertise to match the Client's Needs or Client does not have appropriate resources to support MIT

   Vehicle of Linkage
   *Foundation
   *Center
   *Program

   Match b/w MIT Resources and Client Commitment
The “gap/need” issue is the core reason why a collaboration is sought with any academic institution aside from name recognition. The term “gap/need” in this paper is defined as lack of, or need for resources and expertise to fulfill a country’s or a group’s vision, set of objectives. A “gap” can refer to as a “what” (e.g. Thailand’s lack of engineers) whereas a “need” is the “how” (e.g. human resource development program of engineers) to the missing resources and expertise available to a country or group. For a “gap/need” to be defined, a vision or set of priorities must be identified by the client (the given country or group). If a long term solution is desired, the given country/group should look towards an academic institution to create a program that would fulfill that “gap/needs.” This linkage should be structured that the visiting university provide an institutional framework that would enable the “country/group” to generate and cultivate its own resources and expertise. The traditional form of visiting faculty and students often only benefits the visiting institution because the time period to allow transfer, exchange, and local formulation of expertise and resources is not given. Therefore, the learning process for the locals does not get passed on. It is important to consider a long term relationship to allow activities, programs to be formulated, implemented. A time line can provide a guideline to measure how objectives and priorities are being fulfilled or not. “There must be a cycle of a beginning and an end”\(^\text{38}\) to allow pressure for vision and objectives be realized.

b. Presentation of Case Studies

The case studies are organized by its (i.) background, (ii.) vehicle of linkage, (iii.) relation to the thesis question. Through the analysis of the case studies by : its vision, objectives, gap/need issues, leading personalities, financial structure, and activities to date. Lessons are taken for a possible Philippine-MIT collaboration model.

\(^{38}\) Taken from an interview with Lester Thurow.
a. **EPOCH: Taiwan**

i. **Background**

Taiwan’s economy has prompted its government to promote high technology sector as a result of the failure of its small and medium sized enterprises to invest in research and development. The government’s position in the economy remains large as its state owned enterprises and other public entities accounted for 46.1% of its gross capital formation in 1994. The government’s role is to strengthen its competitive assets on a national scale using procurement policies, subsidies to R&D (research and development), regional incentives, and other measures.\(^{39}\)

Mr. Paul S.P. Hsu, the founder and Chairman of Epoch Foundation, states “confronted with numerous challenges to the development of its political structure, economic environment, and society; Taiwan not only needs to be guided by farsighted polices, but also requires additional room for development to most effectively utilize its resources to meet these challenges.” It is in this environment that Professor Lester Thurow of the Sloan School of Management became interested in Sloan’s role in Taiwan’s economic development. Professor Lester Thurow and Mr. Paul Hsu had worked together to design Sloan’s strategy for engaging Taiwanese corporate donors through the EPOCH Foundation, to support the MIT/Taiwan Program. Along with Professor Thurow, Associate Dean Alan White, Tom Moebus, and Ms. Anddie Chan who are key MIT players in continuing the momentum of the foundation.

ii. **Vehicle of Linkage: Foundation**

A foundation structure is chosen to benefit both the Taiwanese corporate sector (as a tax-free Foundation) and MIT. The Epoch Foundation was established in 1989 to

\(^{39}\) Alice Amsden, “Selective Seclusion and Timely Targeting: Taiwan’s Industrial Policies,” MIT. Conference at Cornell University, May 1996.
create links between Taiwan industry and MIT. “The concept behind the MIT/Taiwan Program developed out of Hsu’s concurrent interest in helping Taiwan become a regional business center for the Asia/Pacific region and the Sloan School’s goal of establishing Asia/Pacific initiatives for faculty and students.”

The Epoch Foundation $10 million Endowment Fund is the giving vehicle to support the activities of MIT. Epoch’s vision is “to study the economic issues and problems related to Chinese societies; specifically focusing on economic issues relating to Taiwan.” To achieve this, Sloan has designed a program that provides executive education for its member corporations. Its activities have centered on MIT faculty visits to Taiwan to conduct research and seminars; and member companies’ participation in Sloan’s Program for Senior Executives; Fellows Program; and Executive Short Course. In addition, the Epoch Foundation Professorship ($2.0 M) has been also funded. In 1995, MIT Professor Donald Lessard became the first Epoch Foundation Professor. Since 1995, activities between MIT and the Epoch Foundation has been numerous. There have been a total of 78 visits by MIT faculty, administrators, and staff. 35 short seminars, courses, lectures, and symposia have been conducted. In its Educational Programs, there have been 12 Epoch member participants in its Program for Senior Executives; 6 in its MIT Sloan Fellows Program; and 8 in MIT Executive Short Courses. The Epoch Foundation has also been provided to membership to MIT’s Industrial Liaison Program (ILP) and participates in the activities and programs of MIT’s Center for Real Estate (CRE).

**iii. Relation to the Thesis Question**

At the core of the Epoch Foundation are questions such as: “How can Taiwan ensure continued stable economic growth given the pressures of intensifying global

---

40 Epoch Foundations’ Minutes, October 1, 996 at the (MIT’s) President’s House.
43 Both are explained at the Terms of Definition at the end of this paper.
competition and its own past record? What effective strategies should Taiwan make use of to counter the various types of social problems that have come about as a result of rapid economic growth in the past?" In terms of development, Taiwan has advanced its human skills to be innovative in its research and development of its products. Professor Alice Amsden states Taiwan has taken the learning based approach to industrialization. Now, it finds able itself to a take a step further and seeks a way for its managers to manage effectively its advanced technology. To do so, it has established a tailor made program with MIT's Sloan to address such issue. The benefits for MIT and Sloan are the opportunities for its faculty and students to learn from, exchange ideas and solutions with Taiwan's private sector in manufacturing. Since the issue is inexhaustible, it is expected that the activities within EPOCH shall continue and develop new programs.

There are lessons for the Philippines to take from the Epoch’s Foundation model. One is its organization structure. In having corporate membership, it has created a competitive source for funding since members require a higher investment for its donation. Its tax free base would appeal to the private sector. Second is the services it offers to its members: access to the ILP and CRE would be beneficial in any industries in the Philippines. With the Philippines need to regulate its land use pattern and its research and development of technology, the resources to within the ILP and CRE are immeasurable. Third is Epoch Foundation's educational development programs: seminars, short courses, symposia, and conferences. The development of programs revolving around MIT resources and expertise matching the needs of the Epoch Foundation members is the key to this collaboration. Since there was a vital commitment from both MIT and Taiwan side, the Epoch Foundation and its activities are able to evolve with the changing needs and time.

---

44 As posed by Epoch Foundation foudner and chairman, Paul Hsu.
EPOCH Foundation
Relations Diagram

Consortium of Private Sector

R

$\text{MIT}\text{ Sloan School of Management}

$\text{EPOCH Foundation}

\text{Member Corporations:}
\text{Provide US $10 million Gift}
\text{Endowment to support activities provided by MIT and Sloan}

\text{$= \text{Money}}$
\text{R=Resources to support MIT proposed activities}

\text{MIT Provides Resources through...}
\text{• Sloan Managerial Program}
\text{• Industrial Liaison Program (ILP)}
\text{• Center for Real Estate}
b. Suksapattanna: Thailand

i. Background

Thailand’s King Adulyadej’s preoccupation for his country’s infrastructure issues, most notably Bangkok’s congestion problems and the country’s water issue, has him searching for international collaborations to address such issues. Since Bangkok’s current population is six million and is expected to “triple in the next two decades to 20 million”\(^{45}\), searching for recommendations to the congestion issue has an affect to the whole country’s economy. Secondly, Thailand’s water issue, namely flooding, is another concern that needs to be address. The King being an engineer has a tendency to search for technical recommendation and solutions.

Thailand has an abundance of natural resources. Unfortunately, its knowledge resource and human skill capability do not equal to its country’s future economic demand. With the growth of its economy, the Thai government is expected to upgrade the skills of its populace to be competitive with its Asian counterparts. Also, the resource and the expertise to address the infrastructure issue within the country is lacking. For Thailand to be innovative in its economy, it must address the human skill and infrastructure issue.

ii. Vehicle of Linkage: Foundation

Similar to Epoch Foundation model, the School of Engineering and the Thai government and private sector uses the foundation model as a tax free base for private sector donation and a giving vehicle for the school. The memorandum of understanding between MIT and the Foundation for Research, Education, and Enterprise (FREE now change to Suksapattanna Foundation) was signed on June 20, 1996. Suksapattana vision is to promote human resource capacity building in Thailand through education, research and institutional development efforts. The mission being to develop a Collaborative Program between MIT and Thailand’s King Mongkutt’s Institute of Technology Thonburi (KMITT), together with the National Science Technology and Development Agency (NSTDA).

It is apt that His Majesty King Bhumibol Adulyadej of Thailand has a personal connection to MIT. His father His Royal Highness Prince Mahidol belongs to MIT Class of 1921. Not only because of H.M. King Adulyadej’s concern for his country’s

human resource and infrastructure needs but also his personal connection to MIT that has prompted such an enthusiastic commitment from the leading personality of Thailand. To match, School of Engineering’s Professor Fred Moavenzadeh has been key in putting a program within the School and the Technology and Development Program to match the needs of Thailand with the resources and expertise within MIT. The Collaborative Programs of Education, Science and Technology boast to undertake activities in (i.) Institutional Building; (ii.) Research and Development; and (iii.) Education.

The financial resources required for carrying out the objectives and identified tasks related to the above projects will be provided by the Suksapattana Foundation. The Foundation has promised approximately US$ 4 M for an endowment fund of a full MIT professorship under the direction of the MIT Provost known as the H.M. King Bhumibol Professorship and to support program of (i.) academic programs; (ii.) research programs; (iii.) institutional building; and (iv.) industrial and governmental collaborations and linkages within five years.

The October-December 1996 Progress Report states the Suksapattana activities:

I. Institutional Building:
   • *Sitting and Physical Master Plan for New Campus at Rajaburi:* Professors Gary Hack, Julian Beinart and Michael Dennis visited KMITT. It was agreed that 8-10 MIT graduate students will participate in a Design Studio on January 1997.

   • *Organization and Administration of New Campus at Rajaburi*

II. Research and Development:
   • *Chemical Engineering Practice School (CHEPS):* (MIT) Professors Gregory McRae and Alan Hatton met with (KMITT) Drs. Sakarindr Bhumiratana and Noppadol Cheamsawat on a joint proposal for the Chemical Engineering Practice School.

   • *Transportation and Logistics:* KMITT and Suksapattana Foundation has invited industry and government officials to meet with (MIT) Professor Joseph Sussman to discuss transportation development on January 20-22, 1997.

   • *Construction Engineering and Management:* There were 32 participants in a short course offered by Professor Robert Logcher on Project Control for Managers and Engineers on November 18-20, 1996 Bangkok, Thailand.

   Professor Moavenzadeh visited KMITT on October 11, 1996 and discussed with Dr. Pasit Lorteerapong and Dr. Kraiwood Kiattikomol on a possibility of establishing a Master of Engineering Degree in Construction Management.
KMITT in conjunction with Suksapattana Foundation and Thai Commercial Bank Ltd. invited highest level executives to ten big construction companies in Thailand to join a round table meeting with Professor Moavenzadeh and KMITT staff on October 11, 1996.

- **Environmental Science:** A high-level executive seminar on process/product design will be held in 1997 under co-sponsorship of KMITT and possibly the Federation of Thai Industries. Professor McRae and David Marks will conduct the seminar.

- **Water Resources Management:** Professor Marks on his October 9-12, 1996 visit submitted a proposal which includes: flood forecasting, information technology, flood control, global subsidence and general water resource and institution.

- **Biochemical Engineering:** Professor Cooney worked with Dr. Sakarindr Bhumiratana and Dr. Yuwapin Lertwerawat on activities for Biochemical Engineering. There has been a short course conducted on Process Engineering and Fermentation Technology: recovery of Biological Material held on January 27-31, 1997.

III. Education:

a. **Personnel Exchanges:** There has been four up to date.

b. **short courses, workshops and executive seminars:** There has been five.

iii. Relation to the Thesis Question

Thailand’s future demand for engineers will increase with time. A country such as Thailand needs to develop its local capabilities. The establishment of the Thailand Technology Development Program (TTDP) with MIT’s School of Engineering will contribute to the country’s need and meet the future demand of engineers. This program shall contribute to (a) joint research; (b) education and human resource development; (c) industrial linkages and public policy activities in specific areas of mutual interest and priority. Through the collaboration with MIT’s School of Engineering, Thailand is fulfilling its long term need of human resources and expertise on its human resources and infrastructure issue. It is only apt that they follow the model of a foundation to ensure a long term activities relationship with MIT. It is fortunate that Thailand’s King Adulyadej is a major sponsor to Suksapattana Foundation. With his personal commitment, it is guarantee to attract Thai’s private sector financial participation and commitment.

---

46 MIT’s Department of Civil and Environmental Engineering Summary of Research: January-September 1996.
The Philippines having a similar urban growth pattern and congestion issues such as Thailand needs to examine the recommendations and solutions of the Suksapattanna Foundation. What Suksapattanna Foundation is bring together the top officials in the academic, private and public sector to discuss solutions to the country’s infrastructure problems. They do this through short courses, seminars, symposia, and conferences. The Suksapattanna Foundation recognizes the need of cooperation, and discussion among the three sectors for Thailand’s economy to grow. Through the Suksapattanna, there is a direct connection to MIT and its resources and expertise that is otherwise unavailable within Thailand. The Philippines through public sector initiatives must evaluate its available resource and expertise to know what are its gaps and needs to better acknowledge its national priorities and attract the appropriate group and persons to assist in the planning strategy of its country.

If the Philippines is to ensure such financial and personal support from both the public and private sector, it must attract such a high profile personality. Philippine society honors and has the highest regards for both personality and education. If it were to create high quality collaborative programs such as Suksapattana Foundation with MIT, it must target the nation’s vision and examine what is missing to fulfill that vision. By doing so, it shall attract respected and influential officials in both the public and private sector.
Suksapattana Foundation
Relations Diagram

King Mongkut’s Institute of Technology, Thonburi

MIT’s Technology and Development Program

Suksapattana Foundation

Gift to Support
MIT Professorship Endowment for School of Engineering; Research/Program Activities

MIT School of Engineering Provides Resources to Support:
• Institutional Building
• Research and Development
• Education

$ = Money
R = Resources to Support Programs
c. SPURS: Developing Areas

i. Background

Because of the need for new ideas and exposure to national development issues, developing countries have often sent its officials in one year academic breaks. In the United States there are numerous institutions that specializes in executive education in management, policies and planning. These programs usually cater to international development professionals. In the field of planning, MIT offers its non degree one year Special Program for Urban and Regional Studies (SPURS) for developing areas. This program draws mid career professionals to the resources and expertise within MIT’s School of Architecture and Planning. It is a place where its Fellows are expose and encourage to exchange ideas and experiences from its fellow classmates. The SPURS attempts to influence the development process by attracting mid career persons to MIT and contribute to MIT’s Department of Urban Studies and Planning (DUSP) International and Regional Planning (IDRP) Group.

ii. Connection with MIT: SPURS Program

In 1967, the Department of Urban Studies and Planning lacked the faculty and the resources to address issues on international development. It is because of student generated interest that Professor Lloyd Rodwin started an informal discussion and exploration group with interested students on the topic of international development. The discussion soon led into a formal program, the Special Program of Urban and Regional Studies (SPURS) in developing areas.

The vision of SPURS is to provide understanding, training, and exchange of knowledge in the field of urban and regional planning of developing areas to mid career persons in the field. Its mission is to provide a one year, non-degree program for mid-career professionals, largely from developing areas. Its objective is to offer: (a) Graduate Level Courses; (b) seminars; (c) collaborative research project; and (d) professional development trip.

The organizational structure of SPURS is under the Department of Urban Studies and Planning (DUSP). The director serves DUSP’s International Development and Regional Planning Group. SPURS “provides an opportunity for a select group of highly qualified professionals to spend a year at MIT studying problems of urban and
regional change within a broad context of international development.”

There is an administrator who handles the administrative needs of the student and the Director. The funding is provided by the students of SPURS. There is a discussion of a One Year Degree Program within SPURS. The One year Degree Program is an attempt for the department to be competitive with the other academic institution executive programs. There has not been a final decision. Another current SPURS activity is the introduction of the Spring 1997 UNDP Management and Development of Governance Division. UNDP Management and Development of Governance Division (MDGD), Fellows and master’s students will be engaged in an intensive summer research project in countries around the world to study the role of decentralization in good governance

iii. Relation to the Thesis Question

The goal of SPURS is its promotion of human capital development in contribution to the development process of developing areas. It gives mid career professionals in the fields of planning opportunities to explore and exchange knowledge in a prominent university setting such as MIT. The program’s strength is its students whose varied background contribute not only to the program and its fellow students but also to the overall DUSP. The World Bank recognizes the importance of person’s education and exposure in the overall development process. “The World Bank is now the world’s largest provider of external financing for social services or human capital development.”

The affects of the SPURS experience cannot be quantitatively measured. Its contribution to the whole development process can only be witnessed by time. As in the case of education, it is up to the individual to use its newly acquired skills and knowledge to contribute back to its home country and institution. What is an apparent affect in SPURS is the community it creates even after completion of the program. Through its semester newsletter and other forms of communication, the SPURS office has been enthusiastic in keeping the relations with its graduates. Not only is educational exchange take place within the university and the program period but also beyond MIT, Cambridge.

For the Philippines, an executive education especially from areas of government is valuable. The kinds of ideas, exchanges brought back are fresh and insightful. There is a need to go outside to really see the problems, the scope of issues of one’s country faces. A connection to the outside to better know the inside is what most of these executive course focuses on. In Harvard University’s Kennedy School of Government,

---

47 SPURS Brochure
48 Major World Bank Programs Fiscal Year 1996 summary.
there is always two persons (usually from the national government) represented in its one year Master of Public Administration Program (MPA). Their focus is public policies. What is lacking is the Philippines continuing relationship with MIT's SPURS. Since urban and regional planning in the Philippines is thought of design oriented, many mid careers shy away from the program. What is needed is a change of perception of SPURS in the Philippines.

But it should be recognize that have been numerous persons from the Philippines who participated in SPURS from the Philippines. Through some are not in the national government, they have had an indirect in the planning process in the Philippines and in the area. One is Professor Olegario Villoria (1996). He is a professor of the University of the Philippines' School of Urban and Regional Planning (SURP). He spent six months as a SPURS Fellow and has applied his SPURS education in his teachings and consultant work of urban planning within the Philippines. Second is Mr. Ernesto Gorospe (1980-1981). He is currently a planner for the Asian Development Bank. It would be persons such as Professor Villoria and Mr. Gorospe who can conjure interest in building a lasting relationship with MIT and DUSP.
Mid-Careers specializing in Developing Areas

SPURS Program

Provides:
• Experience (E)
• Independent Funding ($)
• Intellectual Exchange (IE)

MIT: Department of Urban Studies and Planning

Provides Available Resources (R) Within:
• MIT's School of Architecture and Planning
• MIT
• Harvard University
• Boston University

R
## II. Analysis of Cases

<table>
<thead>
<tr>
<th>Program Foundation</th>
<th>Vision</th>
<th>Issue: Gap/ Need</th>
<th>Funding</th>
<th>Leading Personalities</th>
<th>MIT affiliation</th>
<th>Planned/Future Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOCH Foundation</td>
<td>to promote interaction within the Chinese economic area and research into future development.</td>
<td>Taiwan’s need to utilize human and capital resources from domestic and overseas institutions and private sector.</td>
<td>US$10 million endowment by the EPOCH Foundation to Sloan’s Asia/ Pacific Program</td>
<td>Lester Thurow (MIT) Alan White (MIT) Paul Hsu (EPOCH)</td>
<td>SLOAN School of Management</td>
<td></td>
</tr>
<tr>
<td>Suksapattana Foundation</td>
<td>to promote human resource capacity building in Thailand through education, research and institutional development efforts.</td>
<td>Thailand’s human and technical resources and expertise in field of engineering: transportation and water resources</td>
<td>Unspecified for the whole project. Promised US$4 million to support activities; $2 M for Professorship Endowment;</td>
<td>Fred Moavenzadeh (MIT) David Marks (MIT) H.M. King Adulyadej (Thailand)</td>
<td>School of Engineering: Technology and Development Program</td>
<td>Develop management program with Sloan School of Management</td>
</tr>
<tr>
<td>SPURS Program</td>
<td>for mid-careers who want to enhance their training in planning, policy, and/or design areas. Most fellows are from developing countries.</td>
<td>exposure and exchange of ideas and experiences amongst the planning mid-careers professionals and academics</td>
<td>US$6000-$27,000 From Govts, orgs, foundations, personal</td>
<td>Lloyd Rodwin John de Monchaux</td>
<td>Department of Urban Studies and Planning (SAP)</td>
<td>A possible one year mid career degree program. UNDP Management and Development of Governance Division</td>
</tr>
</tbody>
</table>
The three case studies to be discussed: The EPOCH Foundation; The Suksapattanna; and the SPURS are chosen for their ability to match the “gap” and the “need” issue with the resources and expertise within MIT. Identification of the “gap/need” must be associated with the client’s vision, objectives in relation to the available resources and expertise within MIT. The client is termed as the country, the group that would benefit from the said linkage. The client can also be defined as a sector of a country or economy such as the private sector of a given industry or a consortium of private companies (e.g. EPOCH). Or, a client could be a private/public partnership (e.g. Malaysia case\textsuperscript{49} It is not enough “to want” an association with MIT. The client must have a “gap/need” issue that would appeal to MIT faculty because faculty involvement is crucial for a collaboration to be realized. The next step is identifying the vehicle of “linkage.” It could take a form of a foundation (e.g. EPOCH and Suksapattana) or a program (SPURS). In all, the core is the research component. Not only does the collaboration need to the client’s needs but also MIT’s. The outcome must contribute to MIT’s overall institutional mission of education and practice.

The driving forces behind a given linkage are personalities and issues. Commitment is key to the realization of a MIT collaboration. Commitment in this context is define as having a strong financial and personal support. From the country/client side, its gap issues must be appealing for a MIT faculty member to commit. In the formulation and establishment of the given programs there has been a strong faculty initiative. Professors Thurow, Moavenzadeh and Rodwin are key personalities within MIT who have impressive records of MIT’s international initiatives. All three are innovators in their respective schools, not only in academic pursuits but also in their promotion of international collaboration. They are aware of the immeasurable contribution to both MIT faculty and the students intellectual life. Also, they are aware of the positive possibilities

\textsuperscript{49} For the collaboration with MIT, Malaysian Prime Minister Mahathir partnered with the Malaysia’s private sector.
of MIT’s involvement in the developing societies. In all three cases of EPOCH, Suksapattanna, and SPURS, the initiatives came from the mentioned faculty and the given school alumnae. In all three, the organizational structure is deemed to be dynamic and competitive as it promotes a free and open atmosphere conducive to interaction amongst the private, public, and academic sector. The financial support and structure to these collaboration is key to their being able to reach their goal. For EPOCH and Suksapattanna, it is an endowment. SPURS is independently supported by its participants.

What is evident in all three cases is their emphasis on human capital development (HCD). “One of the important lessons from decades of experience in development is that there is no more direct road to improving living standards in developing countries than investing in the well-being of people.”50 Human capital investment have directly effected a given economy’s growth and sustainability. The center of human capital development is the university. Within the university, there is a free flow of exchange and discourse on ideas and experiences. It is this kind of atmosphere that should encourage innovation. Both the government and industry recognizes this advantage and has promoted linkages with major universities. They have realized the advances associated with education and technology. Looking at the examples set by the East Asian Tigers (Hong Kong, Singapore, South Korea, Taiwan and Japan) in regards to human capital development, it is proven that developing societies must invest in its people’s development through education. Freeman (1989) states that the national technoeconomic strategy follows the principles of

(a) The ability to design and redesign entire production processes, whether in shipbuilding, machine tools or any other industry.

(b) The capacity at national, government level to pursue an integration strategy which brings together the best available resources from universities, government, research institutions, private or public industry to solve the most important design and development problems.

(c) The development of an educational and training system which goes beyond the German level. First, in the absolute numbers of young people acquiring higher levels of education, especially in science and engineering.

50 Section Three: Major World Bank Programs Fiscal Year 1996.
Second, in the scale and quality of industrial training which is carried out at enterprise level.

(d) The policy of eschewing, as noted earlier, foreign investment as a principal means of technology transfer.

(e) The emergence of a far more flexible and decentralized management system, permitting both greater horizontal integration of design, development and production and more rapid response to change.

(f) Close cooperation between the central government and Keirretsu (large conglomerate groupings in Japanese industries) in identifying future technological trajectories, and taking joint initiatives, to adopt these to the country’s prospective competitiveness.51

In all three cases: the EPOCH, Suksapattanna, and the SPURS, the educational program, especially the graduate to senior level, is included and emphasized in its collaboration efforts. This is done to sustain the competitive and dynamic atmosphere of the given program. The promotion of such collaboration is for Taiwan (Epoch) and Thailand (Suksapattanna) to remain competitive. In doing so, it tries to be innovative in its development of its nation’s human skills and product through connection with MIT. In doing so, it has established an institutional linkage with MIT in response to its nation’s vision. The SPURS takes the individualistic approach. Its connection to developing societies is done by encouraging mid careers to spend a year in MIT and take advantage of MIT’s resources in relation to international development and planning.

The given cases examine the human capacity in the nation’s future economic growth. It is important to note that the success of the case studies depended upon the commitment of personalities from both MIT and the country/client side. From MIT, the interest and the commitment is issue driven. The sustainability of the program is due to the degree of personal and resource commitment from the given country/client. The continuation of these programs depend on the commitment of personalities from both side of the specter. It is important to note the success of an organization/program is its ability to adapt to change as well be a catalyst to change. This is achieve by the kinds of resources and commitment available to the given collaborations. In the case of Epoch and Suksapattanna, there are influential personalities that would led the client side of the team such as Mr. Paul Hsu (high respected private sector player in Taiwan) and H.M. King Aduluyadej of Thailand. Secondly, the kinds of resources and programs MIT

should provide are those that would (a.) link academe with industry and government; and (b.) cultivate the local resources and expertise of the given gap/needs of the client.

The effectiveness of the given cases may be measured by MIT’s availability of resources and expertise to address (a.) the long term solution of the client’s need/gap; (b.) the range of issue it has been able to address; and (c.) the issue of the local talents and resources. In the midst of the collaboration programs have been human capital investments. “Investment in people will not be effective unless governments establish an economic framework that ensures macroeconomic stability, markets that are open for trade and investments, the right structure of incentives, proper social policies, and efficiently functioning capital and labor markets. It is not a question of choosing between investing in people and sound economic policies—it must be both.”

This is evident in the programs laid out by the Epoch Foundation, Suksapattanna Foundation, and the SPURS. All three cases is heavily influenced the need to connect human capital investment with national development process.

---

52 Major World Bank Programs Fiscal Year 1996 summary.
Chapter Three

I. Conclusion

a. Lessons for the Philippines

In 1965, the Philippines economic performance soured above its Asian neighbors, including Japan. Then, came the Marcos dictatorship. The political situation in the Philippines has always effected its economic and social performance. Professor Tullao of De La Salle University gives insights to the Philippines economic history:

The Philippines posted an average annual growth rate of 6 percent in the 1970’s not very far from the 7.9 percent record of Thailand, making it one of the promising economies in the region at the time. Per capita income was estimated at USD 790 in 1981 which was higher than USD 770 attained by Thailand in the same year. However, succeeding years of the 1980’s, the Philippines experienced its worst economic record in the post-war period. While other countries in the region grew by leaps and bounds, the Philippines suffered an economic setback caused largely by internal but external factors.

At the same time, the Philippines boast one of the best human capital development in the region. Its engineers, medical personnel, and scholars were highly regarded. Due to this, there was a high demand for Filipino workers overseas. The Philippines suffered a brain drain. It best and brightest people left the country. Yet, the education system kept its quality. The Philippine’s Asian Institute of Management (AIM) boasts the best management education in the region. With its preeminent educational system, the feeling within the country is it has the capability, the expertise and the resources to upgrade its human skill resources. It often shys away from the need of “outsiders” to contribute to the overall human capital development. This perception must be alter to fit the change in society and economy. There is a need within the country to upgrade its research and development in various parts of the industry. There is also a need to train government
officials to know how to respond to the growing economy in connection to the planning issues it is encountering as a result.

It seems that the stock of resource and expertise for the Philippines to address its current planning issue are inadequate to the gap/needs of the nation. The Philippines having a population of 67 million and growing at the rate of 5.4% is in need of evaluating the nation’s infrastructure capacity to meet its growth in population and economy. While the Philippines does have the University of the Philippines' School of Urban and Regional Planning (SURP), there are only twenty (20) regular faculty; three (3) visiting professors; and one (1) lecturer. In all there are only twenty-four academia serving the national government and private sector in relations to urban and regional planning. Also, SURP being under the University of the Philippines is part of the . Therefore, the financial resources available to acquire innovative and competitive research is under the scrutiny of the public sector. This causes some uncertainties of its credibility for the private sector. As a result, SURP suffers a disconnection to industry. A connection with MIT’s School of Architecture and Planning would encourage the connection among SURP, the government and the private sector. It would also add to the resources and expertise within the country and SURP.

The resources and expertise within the School of Architecture and Planning (SAP) corresponds to the needs of SURP, the public and private sector in terms of nation’s planning issues. For one, there is the Department of Urban Studies and Planning (DUSP). Within DUSP, the International Development and Regional Planning (IDRP) group has the faculty and resources that addresses issues of international development ranging from economics to low income housing, to congestion, to urban design. The Department of Architecture and DUSP’s Design and Development (D&D) Group offers design studio in response to urban form. The D&D Group has had studios in Bangkok (Summer ‘95), Barcelona (Summer ‘96). The Department of Architecture

---

53 Provided by The SURP Catalog
had held a Bangkok design studio as part of the Suksapattanna Foundation’s program on January ‘97. Also, MIT’s Center for Real Estate (CRE) falls under the SAP. The CRE is attractive to public and private developers as a forum of discourse on land patter, land use, and land value. SAP’s Media Lab offers cutting edge information technology vital to any economy especially developing. With the innovation of the information technology, it is now possible to have distance learning. SAP’s Dean Mitchell is an innovator of this field within the industry and MIT. He is currently teaching classes in Brazil, Hong Kong, and Singapore at real time in one place, MIT. The Sloan School of Management and School of Engineering have designed The System Design and Management (SDM) Program for mid career, experienced engineers with special combination of advanced engineering and management skills. With access to SAP’s resources and customize programs, the cultivation of local interest, talents and expertise within Philippines to better address its planning issues is greater.

Though interest and enthusiasm alone cannot solicit the collaboration efforts among the Philippine academic, public and private sector and MIT, an evaluation of interest, needs, and resources must be discussed by the said parties. The cases of Epoch, Suksapattanna, and SPURS exemplify the requirement for a customized and specialized program(s) to meet the needs of the given clients. As a developing country, the Philippines has numerous pending issues and questions in regards to its planning process. For it to acquire resources and expertise to better address those issues, it is obligated to prioritize its objectives within the national vision. Ateneo de Manila Professor Licuanan emphasizes that...

“Human Development Report 1996 warns policy makers against being ‘mesmerized’ by the quantity of growth at the expense of its structure and quality. The economic growth of we (the Philippines) are witnessing focuses mainly on the accumulation of financial and physical capital...growth without adequate attention to the distribution of income and assets and to the process of human capital formation is unbalanced and
becomes unsustainable. The Philippines needs to shift its focus slightly to achieve growth with genuine human development.\textsuperscript{54}

The core of these objectives be knowledge and technologically driven. In the efforts of collaboration, the Philippines endeavors should center on institutional building of human resource and expertise. The case studies provided three examples of collaboration with MIT. Two (EPOCH and Suksapattanna) defines their involvement with a Foundation whose activities centers on faculty and student exchanges, executive seminars and short course, institutional building, and programs. One (SPURS) encourages the education of mid career individuals in the planning field to exchange and explore the various methodology and approaches to international development planning.

b. Recommendation

A Foundation

If the Philippines is to pursue a collaboration with MIT, it should focus on having an organization that is independent from the country’s politics, is supported jointly by the private and public sector, and boasts programs that encourage an institutional framework for human capital development. The proposed foundation would be a consortium of private corporations and public agencies. This model should be beneficial to all parties involved. A foundation can encourage the interaction of the private, public, and academic sector on issues of planning. For the private sector, a foundation allows a tax free based organization. For the public sector, it allows it financial influence from any particular private donor. For MIT, it should be independent of national politics and private sector demands.

The leadership role could start with MIT alumni, namely the Philippines MIT Tech Club. Amongst its members, there are those in the leadership role in both the private and public sectors. Since early 1996, the Philippine Tech Club has been attempting ways to define a collaboration with MIT. One is through the Sloan School of Management. In the Fall of ‘96, the Tech Club had invited Professor Lester Thurow to Manila to discuss the possibilities. The conclusion was MIT’s resources and expertise did not match the Tech Club’s stated need, which is management of technology for Philippine based technologies. Within the Tech Club, there is strong interest for

\textsuperscript{54} Taken from Dr. Licuanan’s speech at Fletcher’s Conference on The Philippine Road to NIChood.
collaboration. It would be the Tech Club that could find the personal and financial commitments to support any collaboration with MIT.

Finding out what kind of resources and expertise within MIT can the Philippines utilize at the moment is the question. It would be beneficial for the Tech Club to look into planning issues such as infrastructure is receiving much attention from both the public and private sector. The resources and expertise at MIT’s School of Architecture and Planning (SAP) are recognized and respected internationally for examining urban and regional planning issues. Apart from SAP, there are numerous MIT centers, laboratories and programs (see Appendices under List of MIT Centers, Laboratories and Programs) that could link with any SAP’s efforts with the Philippines.

In the proposed model, the foundation is the center of activities and interaction between the Philippines private and public sector and MIT. The proposed private and public sector consortium would provide the financial and personal support for their given issue and needs to the foundation. The foundation would be the giving vehicle that would support MIT programs and activities adapted in addressing the given issues and needs of the group. The basis of any collaborative programs and activities would be to cultivate local resources and expertise through University of the Philippines’ SURP, executive programs, short seminars, conferences, and MIT’s, DUSP and SPURS.
Proposed Model for the Philippines

Private/Public sector

University of the Philippines:
School of Urban and Regional Planning

(SAP)
MIT: School of Architecture and Planning

Foundation

MIT: SAP Provides Resources...
- Center for Real Estate
- Media Lab
- Departments of Architecture and Planning

Provides...
- Gap/need issue
- Financial and Personal support
Appendices

a. INTERVIEWS

Anddie Chan
Senior Liaison Officer, Office of Corporate Relations

Phil Clay
Associate Provost

Paul Gray
Chair, MIT Corporation

Fred Moavenzadeh
Professor, School of Engineering

Tom Moebus
Director, Office of Corporate Relations

John de Monchaux
Professor, School of Architecture and Planning

Lloyd Rodwin
Professor Emeritus, School of Architecture and Planning

Lester Thurow
Professor, Sloan School of Management

Alan White
Senior Associate Dean, Sloan School of Management
Questionnaire to Interviews

I. What is and was the vision, mission, and objectives of the given linkage?

II. Briefly describe the structure and the working of the linkage?
   a. How is the given program, organization structured?

III. What was the driving force behind the linkage?
   a. What gaps did it fulfill for the "client" (i.e., technology, managerial, infrastructure, regional planning)
   b. Was the linkage "issue" driven by a MIT faculty?
   c. Was the project due to the given client's need for lack of resource within a given country?

IV. Who are the driving force behind the linkage (then and now)?
   a. From the given country?
   b. From MIT Faculty?
   c. High level private and public officials from the given country?
   d. Others?

V. What is the financial structure of the linkage?
   a. Who provided for support (private or public sector or others)?
   b. What is the financial arrangement (endowment, grant, ect.)?
   c. What is the horizon of the financial commitment: long, mid, and short term?

VI. How did the linkage get started?
   a. Did the final outcome change component to its initial vision?
b. If not, how was it modified?

c. What unexpected forces (negative/positive) were encountered?

d. What provisions is made for evaluation, change, and/or renewal?

VII. How is currently working?

a. Who have been the beneficiaries?

VIII. What other resources and expertise did the program provide that was not in the original vision?

a. What was MIT able to offer besides its stated resources?

b. Did it fulfill the gap that was identified?
b. Definition of Terms:

APEC: Asia Pacific Economic Cooperation is a regional block group that focuses on economic cooperation in the given region. It was established to address, recommend, implement regional economic policies.

Client: Refers to the receiving party of MIT’s resources and expertise. They range from the public sector (e.g. government) to the private (corporate).

East Asian NICs: NICs are the Newly Industrialized Countries (middle income economies). Namely, they are Japan, Taiwan, Singapore, South Korea, and Hong Kong.

Gaps: The missing link or factor in formulation of needed resources and expertise of both the “client” and MIT. This can be identified as technology transfer and resources, research and development, etc.

Human Capital Development (HCD): HCD is the World Bank program which focuses on efforts of providing developing countries design and implement proper social sector policies.

Industrial Liaison Program (ILP): The purpose of the Industrial Liaison Program is to forge customized and responsive partnerships between corporations and MIT. Its programs and services are designed to foster close communication between the MIT faculty and corporate leaders throughout the world.
**Linkages:** The term is meant to define the vehicle which MIT and the given client shall formalize its linkage and/or collaboration. (e.g. Foundation, Center, or Program).

**MIT’s Center for Real Estate:** provides an intellectual focus for education, research, and executive training on issues affecting the real estate industry. Faculty associated with the Center are drawn from the School of Architecture and Planning, the Department of Urban Studies and Planning, Civil Engineering, Economics, and the Sloan School of Management.
c. MIT Centers, Laboratories, and Programs

MIT Corporation

President

VP Research

Lab and Centers

Patents

Academic Deans

Lincoln Laboratory

Provoest

Libraries

Undergraduate Education

Graduate Education

Center for Material Research in Archaeology and Ethnology
Center for Advanced Educational Services:Center for Educational Computing Initiatives, MIT Professional Institute
Council on Primary and Secondary Education
Facilities Use Committee
Office of Educational Opportunity Program

Center for Material Science and Engineering
Energy Lab
Francis Bitter Magnet Lab
Haystack Observatory
Operations Research Center
Plasma Fusion Center
Research Lab of Electronics
Sea Grant College Program
Technology and Development Program
Dean, Architecture and Planning

Center for Advanced Visual Studies
Center for Real Estate (CRE)
Media Laboratory

Dean, Engineering

Artificial Intelligence Lab
Biotechnology Process Engineering Center
Center for Competitive Product Development
Center for Technology, Policy, and Industrial Development
Center for Transportation Studies
Concourse
Industrial Performance Center
Integrated Studies Program
Lab for Computer Science
Lab for Electromagnetic and Electronic Systems
Lab for Information and Decision Systems
Lab for Manufacturing and Productivity
Leaders for Manufacturing Program
Material Processing Center
Microsystems Technology Laboratory
Program in Environmental Engineering Education and Research
Program in Polymer Science and Technology
Technology and Policy Program
Technology, Management and Policy Program

Dean, Humanities

Center for International Studies
Film and Media Studies Program
Knight Science Journalism Fellows Program
Women’s Studies Program

Dean, Sloan School of Management

Center for Computational Research in Economics and Management Science
Center for Coordination Science
Center for Information Systems Research
Inventing the Organizations of the 21st Century
Industrial Relations Section
International Center for Research on the Management of Technology
International Financial Services Research Center
Laboratory for Financial Engineering
Leaders for Manufacturing Program
MIT Center for Entrepreneurship
Center for Organizational Learning
Productivity from Information Technology Program
Program on Pharmaceutical Industry
System Dynamics Group
Dean, Science

Bates Linear Accelerator
Center for Cancer Research
Center for Learning and Memory
Center for Space Research
Experimental Study Group
Lab for Nuclear Science
Spectroscopy Lab
Wallace Observatory

Four New Institute-Wide Councils

The Council on the environment
The Council on Educational Technology
The Council on International Relationships
The Council on Industrial Relationships
Bibliography

Alice Amsden, Takashi Hikino. The NICS and The LDCs. "Staying Behind, Stumbling Back, Sneaking Up, Soaring Ahead: Late Industrialization in Historical Perspective."


About MIT  1996 brochure


MIT Reports to the President 1995-1996.


MIT’s Department of Civil and Environmental Engineering Summary of Research: January-September 1996.


MIT-Suksapattanna Memorandum of Understanding 1996.


SPURS Brochure 1996

SPURS Luncheon Seminar, Professor Lester Thurow. February 18, 1997


