

IDE Discussion Papers are preliminary materials circulated to stimulate discussions and critical comments

IDE DISCUSSION PAPER No. 427

**Five Growth Strategies for Myanmar:
Re-engagement with the Global Economy**

Toshihiro KUDO*, Satoru KUMAGAI**,
and So UMEZAKI***

August 2013

Abstract

After decades of isolation, Myanmar is now actively re-engaging with the global economy. For successful re-engagement, Myanmar needs to implement comprehensive economic reforms based on a shared vision for long-term economic development that is characterized by human-centered, high, sustainable, pro-poor, inclusive, and balanced economic growth. In this paper, we propose five growth strategies: “Agriculture Plus Plus,” an export-oriented strategy, a foreign direct investment-driven strategy, a two-polar growth strategy, and a strategy to develop domestic economic corridors. These strategies are used as guides to translate these development agendas into a set of implementable policies, programs, and projects.

Keywords: Myanmar (Burma), growth strategy, economic reforms, re-engagement with global economy

JEL classification: O10, O20, O53

+) This paper was prepared for a research project on the Jakarta Framework on Moving ASEAN and ASEAN Economic Community Forward Beyond 2015 (Jakarta Framework), organized by the Economic Research Institute for ASEAN and East Asia (ERIA). The authors owe a great deal to members of the ERIA research project and to Myanmar government officials and academics. The views expressed in this paper are solely those of the authors.

* Senior Research Fellow, Research Planning Department, Institute of Developing Economies, JETRO, Chiba, Japan (toshihiro_kudo@ide.go.jp).

** Senior Research Fellow, Institute of Developing Economies, JETRO, Chiba, Japan, seconded to Malaysian Institute of Economic Research (MIER), Kuala Lumpur, Malaysia (satoru_kumagai@ide.go.jp).

*** Director, Economic Integration Studies Group, Inter-disciplinary Studies Center, Institute of Developing Economies, JETRO, Chiba, Japan (so_umezaki@ide.go.jp).

The Institute of Developing Economies (IDE) is a semigovernmental, nonpartisan, nonprofit research institute, founded in 1958. The Institute merged with the Japan External Trade Organization (JETRO) on July 1, 1998. The Institute conducts basic and comprehensive studies on economic and related affairs in all developing countries and regions, including Asia, the Middle East, Africa, Latin America, Oceania, and Eastern Europe.

The views expressed in this publication are those of the author(s). Publication does not imply endorsement by the Institute of Developing Economies of any of the views expressed within.

INSTITUTE OF DEVELOPING ECONOMIES (IDE), JETRO
3-2-2, WAKABA, MIHAMA-KU, CHIBA-SHI
CHIBA 261-8545, JAPAN

©2013 by Institute of Developing Economies, JETRO

No part of this publication may be reproduced without the prior permission of the IDE-JETRO.

Introduction

The political and economic landscape of Myanmar is experiencing a new dawn, with the country moving toward political and civil reforms and economic growth. While the world waited for the opening up of Myanmar for many years, the country responded only after the establishment of a “civilian” government led by President U Thein Sein in March 2011. Since then, Myanmar has responded positively, in both words and actions, presenting its development agenda to the world at large and to its immediate neighbors in Southeast Asia and East Asia.

After decades of isolation, Myanmar is now actively re-engaging with the global economy. The new political and international environment provides Myanmar with a good opportunity to join the global and regional economy. The country has embarked on an ambitious program of sweeping reforms to end its isolation and integrate its economy with the global economy. This political transition has received active support from all nations, as demonstrated by the lifting of western sanctions. Myanmar’s future will be decided largely by its ability to remain on course with its reforms and openness, which will, in turn, benefit its people.

Myanmar’s reforms and the opening up of its economy occur in the midst of economic integration and the rise of its giant neighbors, i.e., China and India. Both countries provide Myanmar with new opportunities and challenges. Economic integration facilitates Myanmar’s participation in East Asia’s production and distribution networks. Furthermore, export-oriented and FDI-driven growth strategies will enable Myanmar to grow faster than before. Simultaneously, Myanmar’s domestic industries will face severe competition in an integrated economy, as they must compete with imports from China, India, and other ASEAN (Association of Southeast Asian Nations) countries. Moreover, high economic growth is necessary but not sufficient. Growth should be pro-poor, inclusive, and balanced, as well as environmentally and socially sustainable. In a nutshell, human-centered growth is required.

To successfully re-engage with the global economy after decades of isolation, the development agenda for Myanmar is inevitably comprehensive and challenging. Indeed, even the prioritized agenda in the Framework for Economic and Social Reform (FESR), which the current government issued as the first policy and reform strategic plan, consists of ten areas of interrelated reforms, namely, (1) fiscal and tax reform, (2) monetary and finance sector reform, (3) trade and investment liberalization, (4) private sector development, (5) improvements in health and education, (6) food security and agricultural growth, (7) governance and transparency, (8) improvements in mobile telephony and the Internet, (9) infrastructure investment, and (10) efficient and effective government. Translating these development agendas into a series of implementable

programs is a challenging but immediate task for Myanmar. This task requires a shared comprehensive development vision as a guide to further prioritize and streamline equally important development agendas.

This paper does not address all development agendas; instead, it focuses on growth strategies. Given Myanmar's current status as one of the lowest income countries in the world, high and sustained growth is necessary. Achieving a high growth rate is an enormous challenge for Myanmar. Moreover, the quality of growth is also important, because although growth is necessary, it is not sufficient to achieve long-term poverty reduction. Trickle-down economics does not work automatically, and growth accompanied by an increase in inequality may even increase poverty. Myanmar comprises geographically and ecologically diversified regions with several ethnic groups. Therefore, growth should be inclusive and balanced among every region and state. In addition, environmental sustainability supported by green growth is indispensable for prospective growth. Thus, we propose five growth strategies for Myanmar.

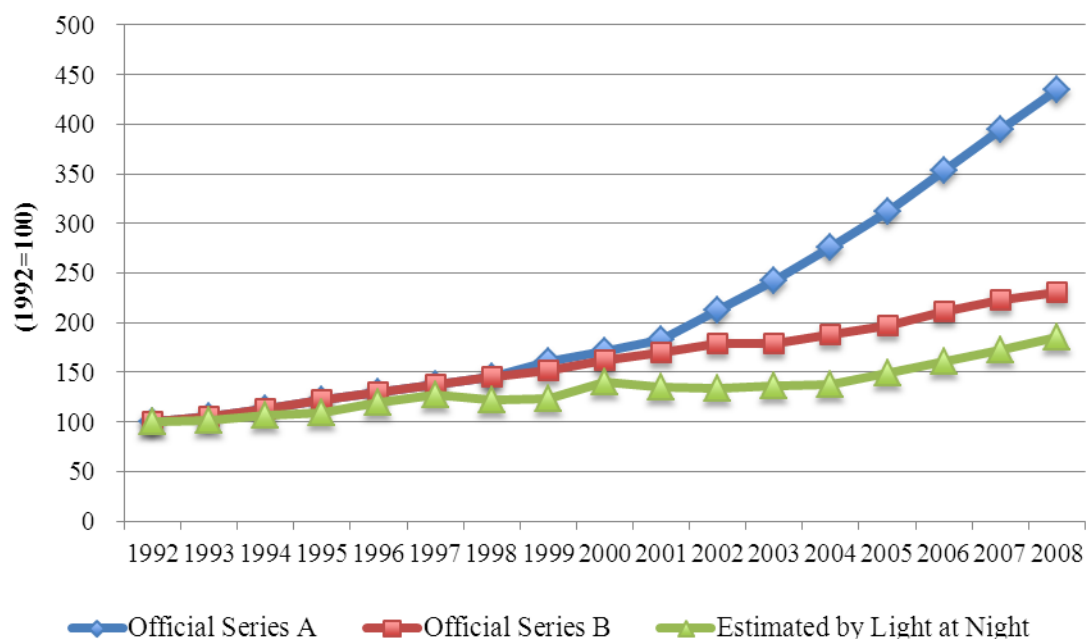
The remainder of this paper is as follows. Section 1 reviews past growth performance and envisages future growth prospects. Section 2 examines the role of agriculture in the long-run development of the country and proposes the "Agriculture Plus Plus" growth strategy. Section 3 examines Myanmar's external sector through a comparison with other Southeast Asian countries and proposes an export-oriented and a foreign direct investment (FDI)-driven growth strategy. Section 4 deals with the geographical aspect of growth and proposes a two-polar growth strategy, emphasizing the importance of Yangon and Mandalay as growth poles. Section 5 argues the significance of the re-emergence and re-engagement of Myanmar in the region and examines the manner of transforming Myanmar into a connecting node in the region from a missing link in the past. The paper concludes that if sound strategies are adapted, Myanmar has the potential of becoming a star growth performer in the region in the future.

1. Growth performance and prospects

Before exploring Myanmar's growth performance and prospects, we need to analyze the dubious nature of the official statistics on which our discussions rely. According to official GDP data compiled and published by the Myanmar government,

Myanmar achieved double-digit growth for 12 consecutive years from FY1999 to FY2010.¹ However, few believe that Myanmar experienced such high and sustained economic growth while they were under international sanctions. Figure 1 indicates three series of GDP statistics: (1) the official series A, compiled and published by the Myanmar government; (2) the official series B, estimated by the UNDP (United Nations Development Programme) (2011) on the basis of official series A and adjusted for strong controls on the exchange rate; and (3) an estimate based on satellite images of lights at night by Kumagai *et al.* (2012a). Considerable discrepancies are observed. Although it is difficult to determine which series optimally reflects reality, both additional estimates imply that the official statistics may have been over-reported. The Myanmar government itself indicated another sign of the low reliability of the official statistics. The government initiated efforts to produce more reliable statistics after the inauguration of the Thein Sein administration in March 2011. In addition, in his speech on June 19, 2012, President U Thein Sein clearly identified having accurate and reliable statistics as one of the four pillars of economic policies.²

Figure 1. Myanmar's GDP in different sources



Sources: UNDP (2011) and Kumagai, *et al* (2012a).

¹ Myanmar's fiscal year starts in April and ends in March.

² President U Thein Sein's speech on the four economic policies appeared in *the New Light of Myanmar*, Myanmar's only English daily newspaper, on June 20, 2012.

1.1. Growth performance and prospects

Table 1 presents the growth performance and prospects of selected Asian economies, including Myanmar, based on the World Economic Outlook Database compiled by the International Monetary Fund (IMF) and official statistics of its member countries. These statistics suggest that Myanmar experienced rapid growth in the past two decades, 7.9% on average in the 1990s and 11.5% in the 2000s. Myanmar's GDP per capita in terms of the current US dollar increased by 10.8 times over the last two decades, the second-highest increase in ASEAN countries following Vietnam. Nevertheless, even with this performance, which may also reflect over-reporting, Myanmar's GDP per capita in 2010 was USD 742, the lowest among ASEAN countries and one of the lowest among developing Asian countries. The gap in GDP per capita between Vietnam and Myanmar widened from USD 30 in 1990 to USD 432 in 2010. Based on IMF statistics, the size of Myanmar's GDP as of 2010 was approximately 43.8% that of Vietnam's. Moreover, according to the latest medium-term IMF forecasts, Lao PDR (9.1%) and Cambodia (8.2%) are expected to outpace Myanmar (7.5%).

Table 1. Growth performance and prospects of selected Asian economies

	GDP growth, constant prices, local currency					Per capita GDP, nominal, USD				
	1970s	1980s	1990s	2000s	2010-18	1970s	1980s	1990s	2000s	2010
	Annual average in %					Times				USD
Singapore	9.9	8.6	8.0	6.3	4.3	5.4	2.6	1.8	2.0	44,697
Hong Kong SAR	10.0	7.5	4.4	4.5	4.5	5.9	2.3	1.9	1.3	32,429
Korea	8.5	10.9	7.3	4.6	4.1	5.9	3.7	1.8	1.8	20,540
Taiwan	10.9	8.5	6.9	4.3	4.4	5.5	3.4	1.8	1.3	18,488
Malaysia	8.9	6.7	7.9	5.1	6.0	4.4	1.3	1.7	2.2	8,634
Thailand	7.7	8.8	4.9	4.8	4.9	3.8	2.2	1.3	2.5	4,992
China	6.9	10.4	11.7	11.7	9.7	3.0	1.7	2.8	4.7	4,423
Indonesia	8.7	6.1	4.4	5.8	7.4	6.4	1.1	1.3	3.7	2,986
Philippines	6.7	1.9	3.2	5.3	6.3	3.8	1.1	1.3	2.0	2,155
Bhutan	4.5	10.9	5.3	9.7	11.1	1.8	1.7	1.5	2.6	2,063
Papua New Guinea	2.8	1.6	5.1	4.5	8.7	3.8	0.9	0.8	2.2	1,494
India	3.2	6.2	6.2	8.2	7.3	2.2	1.4	1.2	2.9	1,356
Vietnam	4.3	6.5	8.4	8.1	6.2	1.0	0.2	4.1	2.9	1,174
Lao PDR	4.1	6.2	6.8	8.0	9.1	0.3	0.7	1.4	3.6	1,105
Cambodia	n.a.	11.7	7.8	8.9	8.2	n.a.	3.9	2.7	2.6	753
Myanmar	4.7	1.4	7.9	11.5	7.5	2.6	2.7	2.6	4.2	742
Bangladesh	1.7	4.1	5.5	6.6	7.5	3.1	1.2	1.3	2.0	723
Nepal	1.8	5.3	5.6	4.5	4.6	1.8	1.6	1.2	2.3	533

Source: International Monetary Fund (IMF), *World Economic Outlook Database*, April 2003 for the 1970s, and April 2013 for the subsequent years. For Myanmar, September 2011 edition is also used for the 1980s and 1990s.

Note: There is a sharp drop in Myanmar's per capita GDP in 1990, probably due to the turmoil in 1988 and afterwards and changes in exchange rates. To see the medium term trend, changes in per capita GDP in the 1980s for Myanmar covers 1980-1989, instead of 1980-1990. The data for Cambodia and Vietnam starts from 1986 and 1973 respectively.

According to the Asian Development Bank Institute (ADBI) (2012), Myanmar aspires to achieve the highest average annual GDP per capita growth rate (7.81%) among ASEAN countries for the two decades up to 2030 (Table 2). Given such a growth rate, Myanmar's GDP per capita is expected to increase from USD 714.8 in 2010 to USD 3,216.4 in 2030, marginally overtaking Cambodia, which is expected to remain lower than USD 3,000 in 2030. Because developed ASEAN countries also have aspirations for steady economic growth, Cambodia, Lao PDR, Myanmar, and Vietnam (CLMV countries) will need to achieve significantly higher economic growth to narrow the development gaps in the region. Furthermore, one of the biggest challenges for latecomers is to sustain a high long-term growth rate.

Table 2. ASEAN aspirations (2010-2030)

	GDP per Capita in 2010 (US\$, at 2010 market prices)	2030 Target (2030 value as a multiple of 2010 value)	GDP per Capita in 2030 (US\$, at 2010 market prices)	GDP per Capita 2010 – 2030 Average Yearly Growth (%)
Brunei Darussalam	30,173.2	2.5	75,432.9	4.69
Cambodia	733.5	4.0	2,933.9	7.18
Indonesia	3,023.3	3.5	10,581.6	6.46
Lao PDR	1,035.0	3.5	3,622.6	6.46
Malaysia	8,260.1	3.0	24,780.4	5.65
Myanmar	714.8	4.5	3,216.4	7.81
Philippines	2,013.6	2.5	5,034.0	4.69
Singapore	43,897.6	1.8	79,300.0	3.00
Thailand	4,734.8	3.0	14,204.4	5.65
Niet Nam	1,238.9	3.5	4,336.2	6.46
ASEAN	3,105.2	2.97	9,325.3	5.60

Source: Asian Development Bank Institute (2012).

Original sources: Population: World Population Prospects: The 2008 Revision, United Nations, Available at <http://esa.un.org/unpp/index.asp>; ASEAN 2030 background paper on country perspectives.

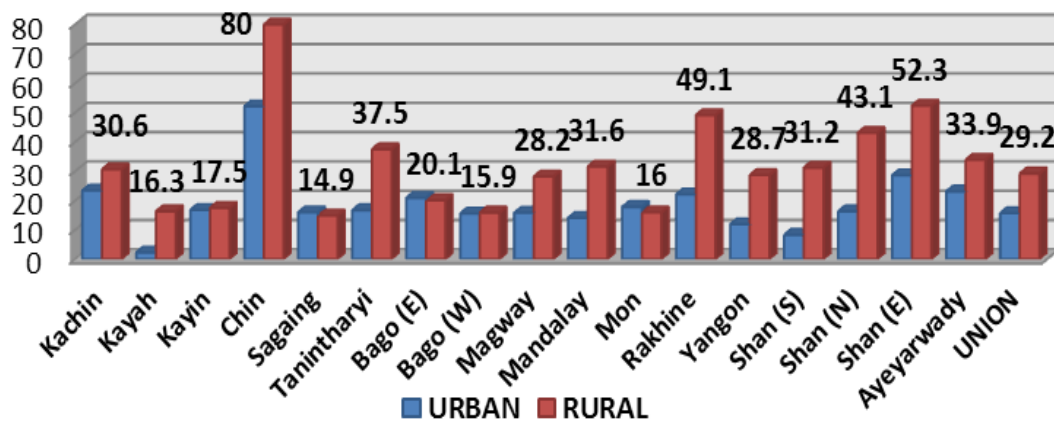
As indicated in Table 2, and implied by economic growth theories, as economies grow, their growth rates tend to decline in the long run. This becomes a source of convergence, i.e., narrowing the development gaps. The so-called Newly Industrialized Economies (Asian NIEs), Singapore, Hong Kong, Korea, and Taiwan, achieved high economic growth of more than or close to 10% per annum in the 1970s and 1980s, before slowing down in subsequent decades. Similar tendencies are observed in developed ASEAN countries, such as Malaysia, Thailand, and Indonesia, although the IMF believes that Indonesia has greater potential. For Myanmar, sustaining a 7.81%

average economic growth for the next two decades is an extremely challenging aspiration.

1.2. Quality of growth and sustainability

To create high and sustainable long-term economic growth, Myanmar needs to explicitly focus on the quality of growth. Economic growth must be inclusive to facilitate the reduction of poverty and inequality; otherwise, it will not be socially and politically sustainable.

Figure 2. Rural and urban poverty incidence in 2010



Source: UNDP and MNPED (2011).

Figure 2 illustrates the uneven distribution of poverty incidence in 2010 by state and region. There is a strong positive correlation between rural and urban poverty, and the poverty incidence in rural areas is higher than that in urban areas. The highest poverty incidence is observed in the rural area of Chin State, where 80% of the population lives below the poverty line, a proportion that is more than five times higher than that in the rural area of Sagaing Region (14.9%). The lowest poverty incidence is observed in the urban area of Kayah State, where the poverty incidence in the rural area (16.3%) is also significantly lower than the national average (29.2%). Note that the poverty incidences in the rural areas of Yangon (28.7%) and Mandalay (31.6%), the centers of economic activity in Myanmar, are comparable to the national average. These differences in poverty incidences can result in social instability. Therefore, the Myanmar government explicitly focuses on this issue in designing its economic growth strategy to reduce economic disparity both among regions and states as well as between urban and rural areas.

Although income is an important indicator, it is not a sufficient measure of economic development. Table 3 presents the Human Development Index (HDI) compiled by the UNDP. Myanmar's HDI in 2012 was 0.498, the second lowest among its neighboring countries, following Nepal, ranking Myanmar 149th out of 187 reporting countries. In addition, Table 3 indicates Myanmar's life expectancy at birth was 65.7 years, also the second lowest, following Cambodia, and significantly lower than the average in East Asia and the Pacific (72.7 years). Most of the detailed items correlate with the HDI and income levels; however, this does not imply that an increase in income automatically improves each statistic. Rather, an economic growth strategy needs to be designed to accompany improvements in these items.

Table 3. Selected indicators of the Human Development Index (HDI)

	Human Development Index (HDI)		Life expectancy at birth	Maternal mortality rate (/1000)	Mean years of schooling	CO2 emissions per capita (tonnes)	Changes in forest area: 1990/2010 (%)
	Value	Rank out of 187					
Singapore	0.895	18	81.2	3	10.1	6.7	0.0
Brunei Darussalam	0.855	30	78.1	24	8.6	27.5	-8.0
Malaysia	0.769	64	74.5	29	9.5	7.6	-8.6
China	0.699	101	73.7	37	7.5	5.3	31.6
Thailand	0.690	103	74.3	48	6.6	4.2	-3.0
Philippines	0.654	114	69.0	99	8.9	0.9	16.7
Indonesia	0.629	121	69.8	220	5.8	1.7	-20.3
Vietnam	0.617	127	75.4	59	5.5	1.5	47.4
India	0.554	136	65.8	200	4.4	1.5	7.0
Cambodia	0.543	138	63.6	250	5.8	0.3	-22.0
Lao PDR	0.543	138	67.8	470	4.6	0.3	-9.0
Bhutan	0.538	140	67.6	180	2.3	1.0	7.1
Bangladesh	0.515	146	69.2	240	4.8	0.3	-3.5
Myanmar	0.498	149	65.7	200	3.9	0.3	-19.0
Nepal	0.463	157	69.1	170	3.2	0.1	-24.5
East Asia and the Pacific	0.683		72.7	73	7.2		

Source: UNDP (2013).

Another key aspect of ensuring long-term economic growth is fiscal sustainability. The role of infrastructure in economic development cannot be overemphasized, and one of the biggest challenges is financing infrastructure projects. Most Asian countries have effectively used official development assistance (ODA) from developed countries, the World Bank, the Asian Development Bank (ADB), and other donors to meet the huge demand for infrastructure financing during the process of economic development. Table 4 provides an overview of the external debt of selected Asian countries. In 2011, the debt burden in terms of total external debt stocks to gross national income (GNI) was

the highest in Lao PDR (80.3%), followed by Bhutan (65.0%) and Vietnam (49.1%). For most countries in the table, this ratio decreased in the 2000s. In particular, the developed ASEAN countries, Indonesia, Thailand, and Malaysia, which were severely affected by the Asian currency crisis in the late 1990s, experienced significant increases in their debt burdens and successfully managed these debts in the 2000s.

Table 4. External debt of developing Asia

	External debt stocks to GNI (%)				Debt service ratio (%)			
	1990	2000	2010	2011	1990	2000	2010	2011
Lao PDR	204.0	151.7	84.2	80.3	8.5	8.0	13.2	n.a.
Bhutan	28.1	50.5	63.9	65.0	n.a.	n.a.	13.5	11.1
Vietnam	384.0	41.9	48.4	49.1	n.a.	7.5	3.5	3.2
Cambodia	165.5	74.9	35.9	35.3	n.a.	1.7	0.9	1.0
Malaysia	36.4	48.7	37.1	34.8	12.6	5.6	5.5	3.9
Philippines	70.2	72.2	36.9	33.6	27.6	16.0	21.8	17.6
Indonesia	64.0	95.6	28.4	26.0	33.5	22.8	17.4	14.5
Thailand	33.3	66.1	26.4	24.0	16.9	16.3	4.7	3.8
Bangladesh	39.9	31.9	23.5	22.6	34.6	10.5	4.7	5.5
Nepal	44.7	52.2	23.5	20.8	15.2	7.5	10.5	9.5
India	26.6	21.5	17.4	18.3	34.9	17.5	6.8	6.5
Myanmar	168.0	65.5	17.2	15.1	18.2	1.2	7.1	n.a.
China	15.4	12.3	9.5	9.4	11.7	9.1	3.6	3.6

Source: World Bank (2013).

Note: For Myanmar, external debt stocks are expressed as the share to GDP, based on the data from IMF, *World Economic Outlook*, April 2013.

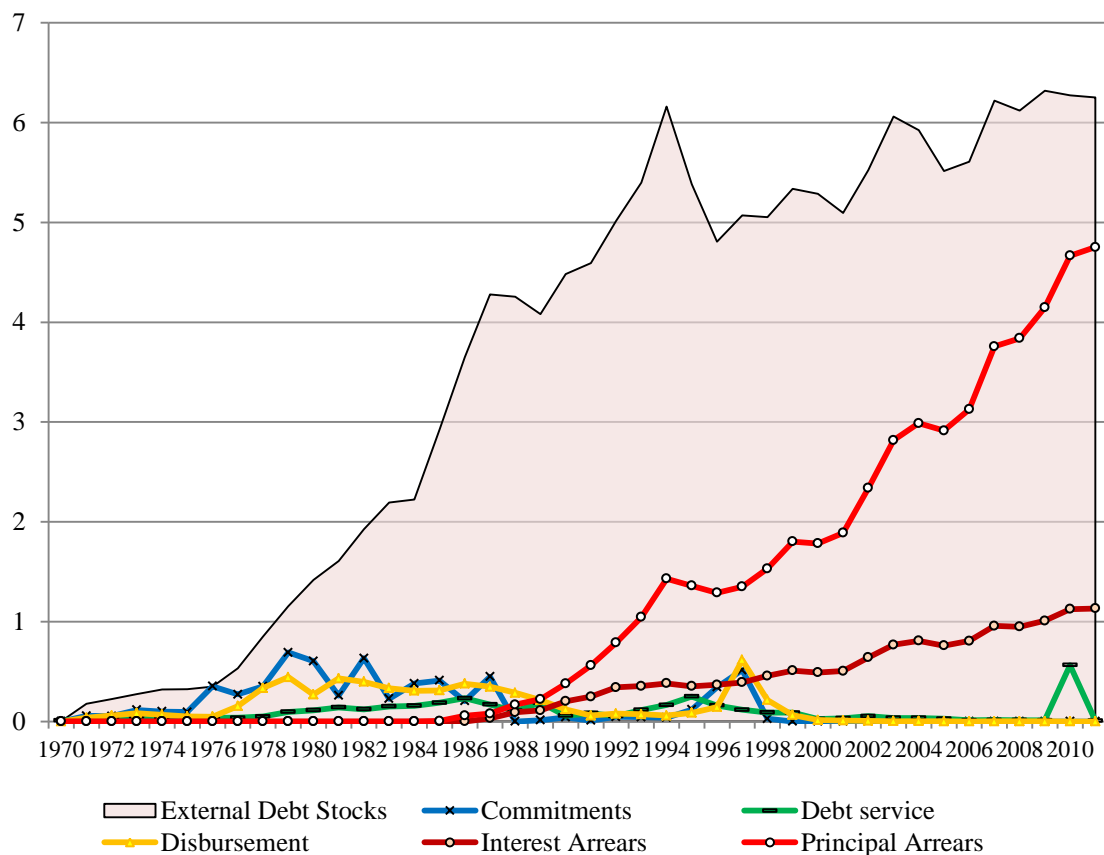
Although CLMV countries had heavy debt burdens in 1990, they successfully decreased their external debt stocks to GNI ratios, but in a different manner as compared with Myanmar. During the last two decades, Cambodia, Lao PDR, and Vietnam were granted debt restructuring totaling USD 3.2 billion, USD 2.21 billion, and USD 12.4 billion, respectively.³ In contrast, debt restructuring granted to Myanmar during the same period was only USD 76.0 million, reflecting the country's isolation under its military government.

As illustrated in Figure 3, Myanmar began receiving ODA in 1971, and the resulting long-term external debt stocks sharply increased to USD 6 billion by 1994. Long-term loan commitments were made regularly in the 1970s and 1980s, but they stopped in 1998, when the military government seized power in a coup. Since then, both commitment and disbursement amounts have been limited, primarily owing to

³ Calculated based on World Bank (2013).

economic sanctions imposed by the United States and European countries. Along with this trend, the payment of interest and principal began falling into arrears, resulting in external debt that has remained at approximately USD 5–6 billion, with a marginal upward trend. By the end of 2011, the total external debt was USD 7.8 billion, of which USD 6.3 billion is long-term debt. That is, the observed reduction in the debt to GNI ratio presented in Table 3 was caused solely by an increase in GNI and not repayments. In short, Myanmar was isolated from the international aid community in both directions during the last two decades.

Figure 3. Myanmar’s long term external debt (billions USD)



Source: World Bank (2013).

Note: For Myanmar, external debt stocks are expressed as the share to GDP, based on the data from IMF, *World Economic Outlook*, April 2013.

The ongoing changes in Myanmar since March 2011 have been welcomed by the international community with a keen interest in resuming official assistance to the country. At this stage, the country’s total external debt and arrears were exposed as a major bottleneck. However, the problem has been resolved by highly cooperative responses from the international community, particularly from the Japanese government.

As the first major international reaction, Japan waived debts and overdue charges of USD 3.7 billion and reached an agreement during President U Thein Sein's first visit to Tokyo in April 2012. This agreement enabled Japan to resume its yen loans to Myanmar. Furthermore, Japan played a key role in the Paris Club agreement of January 25, 2013, which provided debt relief of USD 6 billion to Myanmar and was the second monumental step, enabling other major donors including the ADB and the World Bank to provide fresh aid to Myanmar in the emerging context.⁴

2. Role of agriculture and its new growth strategy⁵

On June 19, 2012, President U Thein Sein declared that the government had entered the second phase of its reform strategy focusing on economic development⁶. In the same speech, he announced four economic policies: (1) sustained agricultural development toward industrialization and all-round development; (2) balanced and proportionate development among states and regions with equal shares of the budget and taxation, foreign aid, and foreign and local investment; (3) inclusive growth for entire population; and (4) compilation of quality and accurate statistics.

It is natural and reasonable that the government prioritizes agriculture as a source of broad-based growth and poverty reduction, as it accounts for 36% of GDP, employs a majority of the workforce, and generates 25–30% of export earnings.

However, Petty–Clark's law states that the share of agriculture in employment and GDP decreases as GDP per capita increases, indicating that agriculture alone will not absorb Myanmar's growing labor force and will not remain a leading industry in the long run. Then, what is the role of agriculture in the long-term economic growth of Myanmar, and how does agriculture realize this role?

⁴ The Paris Club agreed to cancel half the arrears that Myanmar owed them in two stages and rescheduled the remaining over 15 years, with a seven-year grace period. The ADB announced that the arrears owed to it were cleared with the help of Japan and resumed assistance to Myanmar by offering a USD 512 million loan for social and economic projects. Myanmar's arrears to the World Bank were also paid with the help of Japan, and the World Bank responded with a USD 440 million credit.

⁵ This section is primarily drawn from Kudo *et al.* (2013).

⁶ *The New Light of Myanmar*, June 20, 2012

2.1. Role of agriculture in long-run economic growth

Myanmar is still an agrarian economy. Surprisingly, the share of agriculture in GDP was as high as approximately 60% until 2000 (Table 5). Since then, it declined to 36% in 2010. The five-year plan (FY2011/12–FY2015/16) targets a reduction in the share of agriculture from 36.4 to 29.2%, an increase in the share of industry from 26.0 to 32.1%, and an increase in the share of services from 37.8 to 38.7%. If the target is achieved, industry will replace agriculture to become the largest sector in Myanmar.

However, the decline in the share of agriculture in the 2000s may be erroneous due to the overestimation of GDP figures. Many economists believe that official GDP figures are overestimated, and that the real growth rates are significantly smaller. During the overestimated period, industry grew considerably faster, at approximately 20% per annum, than agriculture to achieve double-digit GDP growth rates. Consequently, the share of agriculture in GDP substantially declined in the 2000s, whereas that of industry increased.

Table 5. GDP by industry

	Primary industry				Secondary industry			
	1980	1990	2000	2010	1980	1990	2000	2010
Myanmar	47	57	57	36	13	11	10	26
Cambodia	-	56	38	36	-	11	23	23
Lao PDR	-	61	49	31	-	15	19	27
Vietnam	50	39	25	21	23	23	37	41

Source: ADB (2012).

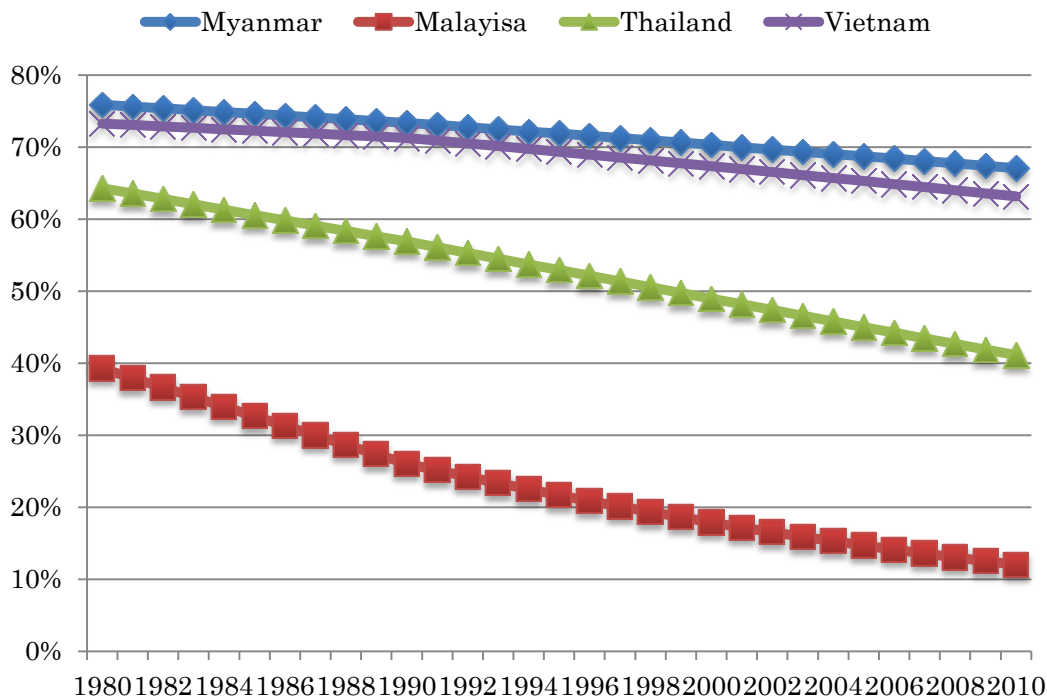
Agriculture employs a majority of the workforce in Myanmar. Figure 4 illustrates the share of agricultural population (hereafter AP)⁷ in the total population of selected ASEAN countries. The AP share for Myanmar was 67.1% in 2010.

The experiences of neighboring countries indicate that the AP share declines as GDP per capita increases, and Myanmar follows this trend. However, the decline in the AP share is slower than that in agricultural GDP share. For instance, the share of primary industry in Vietnam’s GDP declined from 50% in 1980 to 21% in 2010, but its AP share dropped only from 73.3% in 1980 to 63.2% in 2010. Thus, for Myanmar,

⁷ FAO (Food and Agriculture Organization of the United Nations) defines “agricultural population” as “all persons depending for their livelihood on agriculture, hunting, fishing and forestry. It comprises all persons economically active in agriculture as well as their non-working dependents” (FAO Stat).

agriculture is expected to remain the primary source of employment for the short and medium term.

Figure 4. Share of agricultural population in total population

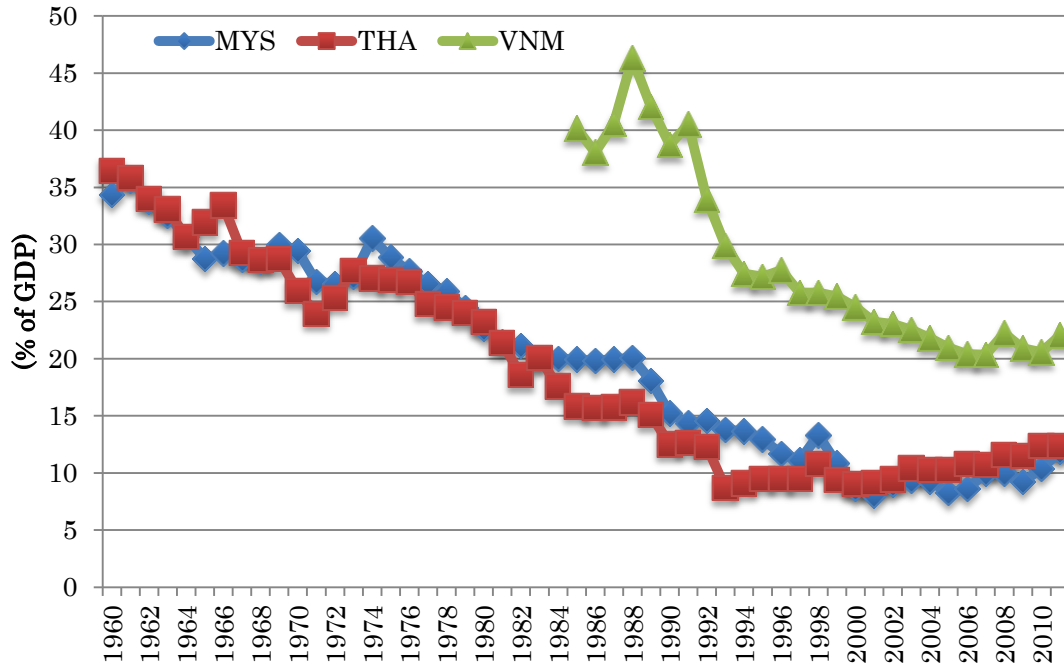


Source: FAO Stat.

Figure 5 indicates agricultural GDP (hereafter AGDP) for selected ASEAN countries. For Thailand and Malaysia, the AGDP share declined from approximately 35% in 1960 to approximately 10% in the 2000s. For Vietnam, AGDP share was more than 40% in the late 1980s, and it declined to approximately 20% in the 2000s. These experiences of neighboring countries suggest that Myanmar’s AGDP share is also expected to decline in the long run.

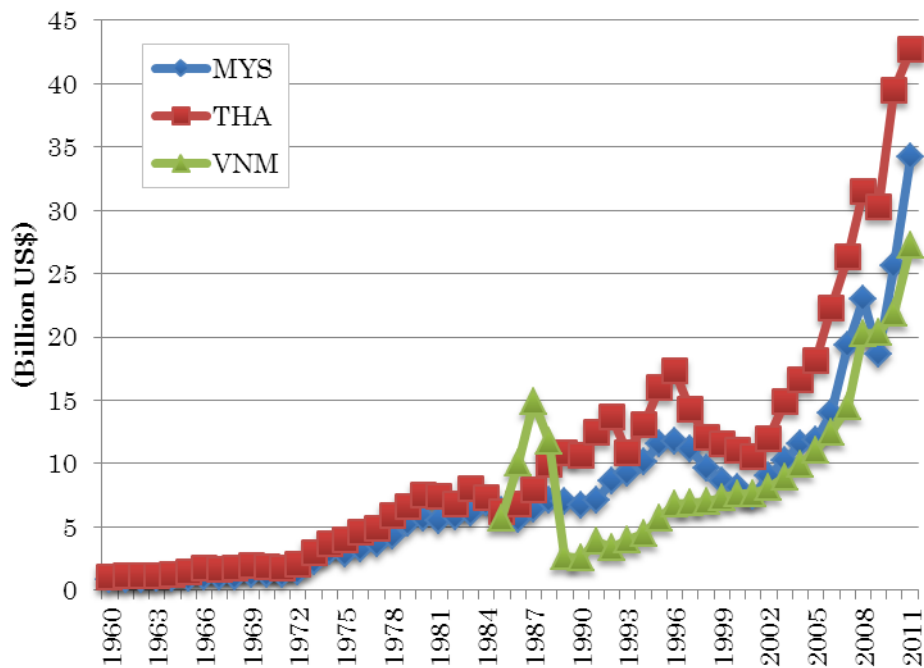
However, it should be noted that the AGDP shares of these countries do not decline toward zero. Moreover, in the 2000s, the declining trend of the AGDP share was curtailed. Figure 6 shows the value added in agriculture for Thailand, Malaysia, and Vietnam. Although the AGDP share declined until 2000, the absolute value of agricultural value added actually increased. This increase accelerated during the 2000s, partially because of increasing prices of primary goods supported by an ever-increasing world population and the economic development of large, emerging countries such as China.

Figure 5. Agricultural GDP share



Source: World Bank, *World Development Indicators Online*.

Figure 6. Value added in agriculture



Source: World Bank, *World Development Indicators Online*.

Therefore, although the relative importance of agriculture is declining in industrializing economies, agriculture is not a sunset industry. In the long run, agriculture cannot be relied upon to absorb a larger labor force than manufacturing and services in developing economies; moreover, it is expected to release labor to other sectors. Nevertheless, agriculture can still contribute to economic development by increasing land and labor productivity.

Moreover, agriculture especially facilitates the reduction of poverty. The World Bank's cross-country estimates reveal that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture (World Development Report 2008, p.6). The rural population represents approximately 70% of Myanmar's total population. In addition, as of 2010, the incidence of poverty in rural areas (29%) was approximately twice as high as that in urban areas (15%) (NPED, SIDA, UNICEF, and UNDP, 2011). As a result, rural areas account for almost 85% of total poverty in Myanmar. Agriculture and its related businesses are expected to contribute to poverty reduction.

Myanmar's industrial sector continues to be dominated by agro-processing activities such as rice milling and oil extraction. For the foreseeable future, a comparative advantage will remain with primary activities such as agriculture, livestock breeding, fisheries, and agro-processing. Under such a situation, agricultural growth can induce strong growth in other economic sectors through multiplier effects. Therefore, for several years, the growth strategy for most agriculture-based economies must be anchored in agricultural progress (World Bank, 2007, p.7).

2.2. How to develop agriculture?

Given the above discussion, what strategy should be adopted for the growth of agriculture in Myanmar? Consider the following production function for agriculture:

$$Y = Af(A_L L, A_N N),$$

where Y is output, A is total factor productivity, A_L is labor productivity, L is labor input, A_N is land productivity, and N is land input. In this case, the sources of growth are A , A_L , L , A_N , and N .

Table 6 presents the agricultural productivity in selected ASEAN countries. Labor productivity is defined as AGDP divided by economically active population in agriculture. Labor productivity in Malaysia is exceptionally high, USD 11,370 per unit of labor. Labor productivity in agriculture seems to follow the level of economic development. The labor productivity of Indonesia, Thailand, and the Philippines is

approximately USD 1,500 per unit of labor, and that of Cambodia, Lao PDR, and Vietnam is approximately USD 700–800. Myanmar’s labor productivity is very low, approximately USD 300 per unit of labor.

Table 6. Agricultural productivity in selected ASEAN members (2009)

	(A)Agricultural GDP(million USD)	(B)Total Economically active population in Agriculture ('000)	(C) Agricultural Area ('000 Ha)	Labour Productivity (A)/(B)	Land Productivi ty (A)/(C)	Land per Labour (C)/(B)
Cambodia	3,484	4,895	5,555	712	627	1.13
Indonesia	82,503	49,513	53,600	1,666	1,539	1.08
Malaysia	18,646	1,640	7,870	11,370	2,369	4.80
Myanmar	5,598	18,613	12,411	301	451	0.67
Thailand	30,234	19,494	19,795	1,551	1,527	1.02
Vietnam	20,321	29,302	10,272	694	1,978	0.35
Philippines	22,019	13,336	11,950	1,651	1,843	0.90
Lao PDR	1,929	2,311	2,346	835	822	1.02
Total/Average	184,734	139,104	123,799	1,328	1,492	0.89

Source: FAO Stat and ADB.

Two groups of countries exist with respect to land productivity. The first includes Malaysia, Indonesia, Thailand, Vietnam, and the Philippines, which have a land productivity of approximately USD 1,500–2,500/ha. The second group includes Cambodia, Myanmar, and Lao PDR, which have a land productivity of less than USD 1,000. Among these countries, Myanmar’s land productivity is exceptionally low, USD 451/ha.

No significant differences exist in land per unit of labor among ASEAN countries, except for Malaysia, which has the highest land per unit of labor (4.80 ha/labor), and Vietnam, which has the lowest (0.35 ha/labor). Myanmar has the second-lowest land per unit of labor (0.67 ha/labor).

The above discussion suggests that we cannot rely on the growth of labor input (*L*) because an increasing proportion of the workforce will be absorbed by other sectors, particularly manufacturing. Therefore, we tap into four other sources of growth.

(1) Expansion of agricultural land (*N*)

Naturally, expansion of agricultural land is one source of growth. However, is it possible to reclaim agricultural land in Myanmar?

Myanmar’s agricultural land per capita is 0.261 ha, which is on par with that of Thailand (0.288 ha) and Malaysia (0.282 ha) and is among the highest in populated ASEAN countries (Table 7). On the other hand, agricultural land (net area sown)

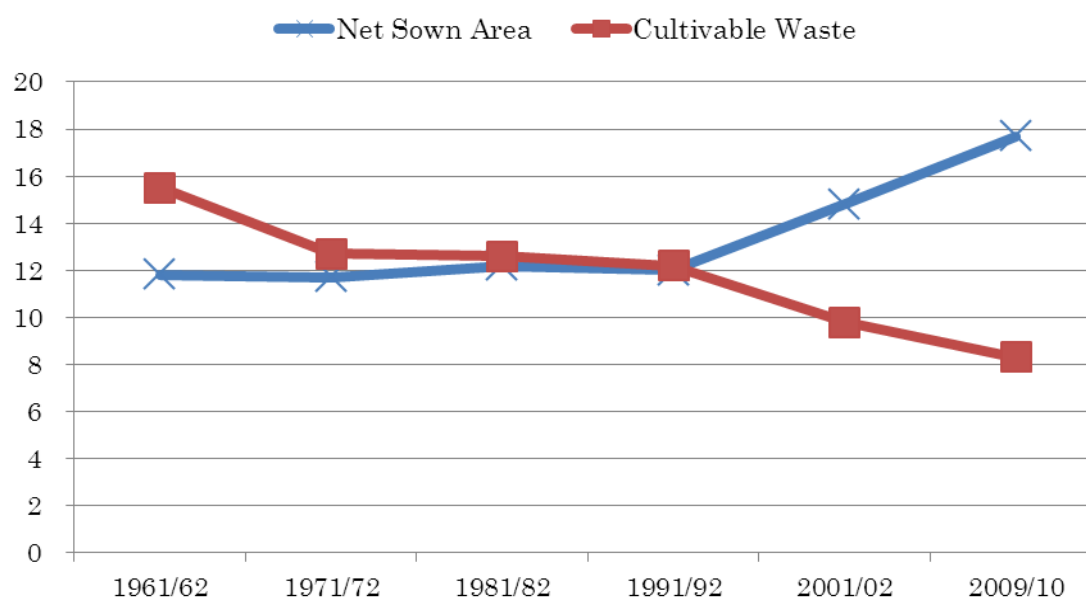
comprises only 18% of the national territory (Figure 7), which is lower than in the Philippines, Thailand, Vietnam, and Cambodia, where it is more than 30%, and Indonesia and Malaysia, where it is more than 20%.

Table 7. Agricultural area and population of selected ASEAN members (2009)

	(A) Agricultural Area (‘000 Ha)	(B) Area (‘000 Ha)	(C) Population (‘000)	(A)/(B)	(A)/(C)
Myanmar	12,441	67,659	47,601	18.4%	0.261
Malaysia	7,870	33,080	27,949	23.8%	0.282
Thailand	19,795	51,312	68,706	38.6%	0.288
Vietnam	10,272	33,105	86,901	31.0%	0.118
Indonesia	53,600	190,457	237,414	28.1%	0.226
Philippines	11,950	30,000	91,703	39.8%	0.130
Cambodia	5,555	18,104	13,978	30.7%	0.397
Lao PDR	2,346	23,680	6,112	9.9%	0.384

Source: FAO Stat.

Figure 7. Land use in Myanmar



Source: Agricultural Statistics.

Successive governments attempted to reclaim new agricultural land, and the military government successfully increased the net sown area during the past two decades. Yet, “cultivable waste other than fallows” remains at approximately 8% of the national territory. Thus, it is possible to further reclaim cultivable wasteland in Myanmar.

However, the frontier for reclaimable agricultural land in Myanmar has been disappearing and expansion of agricultural land is becoming more technically difficult and expensive. The military government implemented large-scale, deep-water reclamation projects for paddy cultivation in the Ayeyarwady Delta in the early 21st century, but efforts to reclaim this land mostly failed. Moreover, the environmental and social impacts should also be considered when planning the reclamation of agricultural land. Thus, we need to improve productivity rather than merely expand agricultural land.

(2) Enhancing labor and land productivity (A_L, A_N)

We suppose three types of productivity: labor productivity (A_L), land productivity (A_N), and total productivity (A). First, we discuss land and labor productivity. As Table 6 demonstrates, agricultural labor productivity in Myanmar was USD 301 per person in 2009, the lowest among Southeast Asian countries, less than half of that in Vietnam, and less than one-fifth of that in Thailand. Further, land productivity in Myanmar was USD 451/ha in 2009, also the lowest among ASEAN countries.

To investigate production volume rather than value, we focus on paddy, the most important crop in Myanmar. Table 8 shows land productivity based on paddy production and area in 2010. Myanmar’s paddy yield was 4.12 tons/ha, approximately the average for East Asian countries, indicating that there is room for improvement, although limited.

However, there is skepticism regarding the statistics for Myanmar in Table 8. The data for Myanmar presented by the United States Department of Agriculture (USDA) suggests that Vietnam’s average paddy yield was nearly twice as high as that of Myanmar in 2008. The two sets of paddy yield data for Myanmar reflect significant discrepancies (Kubo, 2013, Figure 2). Again, accurate data are required to analyze agricultural productivity.

Table 8. Paddy production and area (2010)

	(A) Production(ton)	(B) Area(Ha)	(A)/(B)
Republic of Korea	6,136,300	892,074	6.88
China	197,212,010	30,117,262	6.55
Japan	10,600,000	1,628,000	6.51
Vietnam	39,988,900	7,513,700	5.32
Indonesia	66,469,400	13,253,500	5.02
Myanmar	33,204,500	8,051,700	4.12
Malaysia	2,548,000	673,745	3.78
Philippines	15,771,700	4,354,160	3.62
Lao PDR	3,070,640	855,114	3.59
Cambodia	8,245,320	2,776,510	2.97
Thailand	31,597,200	10,990,100	2.88

Source: FAO Stat.

The widening gap in the yield between the two countries can be attributable to technological change rather than changes in their rice pricing policies. In fact, rice farmers in Myanmar are equipped with inadequate irrigation facilities and lower-performing HYVs (high yielding varieties) as compared with their Vietnamese counterparts (Kubo, 2013).

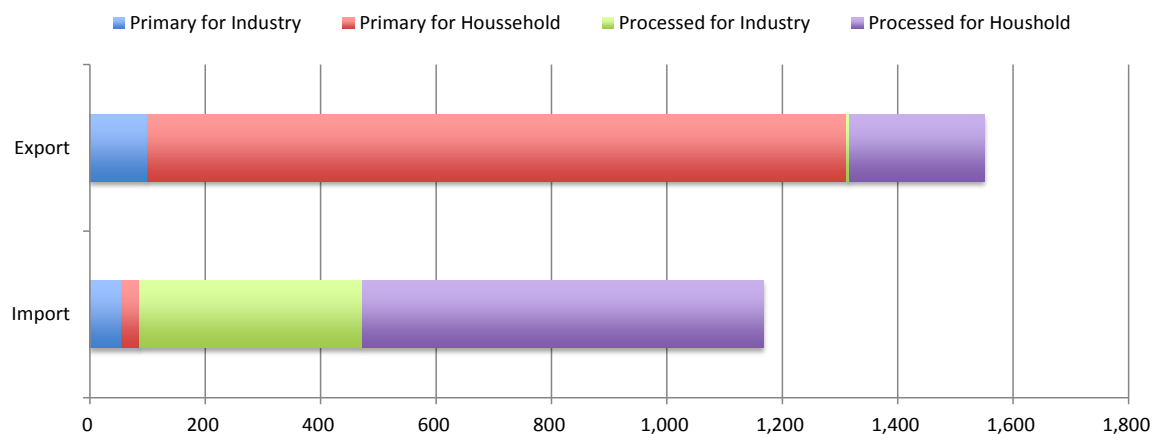
Both land and labor productivity for agriculture in Myanmar needs to be enhanced. The typical methods to enhance land productivity are irrigation and appropriate use of fertilizers. The Myanmar government needs to develop a comprehensive plan to improve irrigation and dissemination of fertilizers among farmers. A typical method of enhancing labor productivity is mechanization, and the mechanization of agriculture also requires a comprehensive plan.

(3) Enhancing total agricultural productivity (A)

We consider two ways of enhancing total agricultural productivity. First is the employment of higher quality products and higher degrees of processing. Myanmar exports low-quality agricultural products (Figure 8). For example, the price of Thai white rice is nearly twice as high as that of Myanmar rice in international markets. This is primarily due to the low quality of Myanmar rice and its poor international reputation. In addition, Myanmar is an importer of food, particularly processed food. Daw Than

Than Soe, President of City Mart, a leading retail chain, stated that approximately 80% of the food sold in her stores is imported because of the underdeveloped food processing industry and poor logistics, including cold chains (JETRO Yangon Life, 2013). Myanmar exports low-quality and primary agricultural produce and imports processed food. As a result, the country's trade balance of food is not significant against its general impression as a large agrarian exporter. Quality seeds; good farm management; improvements in post-harvest systems, processing, and marketing; and so forth are necessary to provide high-quality agricultural products to international markets.

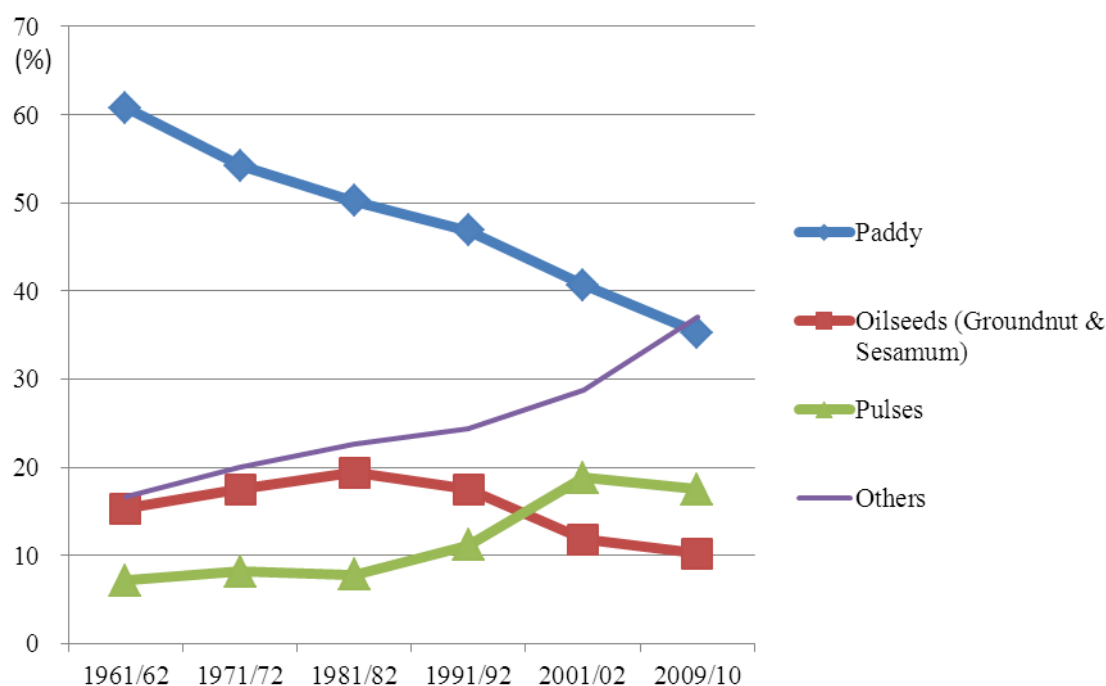
Figure 8. Myanmar's export/import of food in 2010 (USD, millions)



Source: UN Comtrade.

The second method to enhance total agricultural productivity is to diversify crops according to market demand. The share of paddy in sown acreage has steadily declined since the 1960s (Figure 9). Myanmar's agriculture is no longer rice-dominated; it is more diversified. The share of pulses in sown acreage increased in the 1990s owing to exports, primarily to India, but stagnated in the 2000s. The share of oilseeds (groundnut and sesame) in sown acreage declined during the past two decades because of palm oil imports from Malaysia and Indonesia. The volume of other products, such as rubber, sugarcane, cotton, maize, fruits, and vegetables, has been increasing since the 1960s. In addition, livestock and fisheries demonstrate considerable potential. Given that paddy production remains self-sufficient, Myanmar's agriculture can diversify into higher value-added crops in response to changing market demands.

Figure 9. Sown acreage by crop in Myanmar



Source: Agricultural Statistics.

2.3. Agriculture Plus Plus

Summing up the above discussion, there are two ways to derive additional value from agriculture: enhancing productivity and broadening economic functions along the value chain. We call this strategy “Agriculture Plus Plus” after Malaysia’s “Manufacturing Plus Plus,” a concept coined in the Second Industrial Master Plan, 1996–2005 (IMP2) (MITI, 1995).

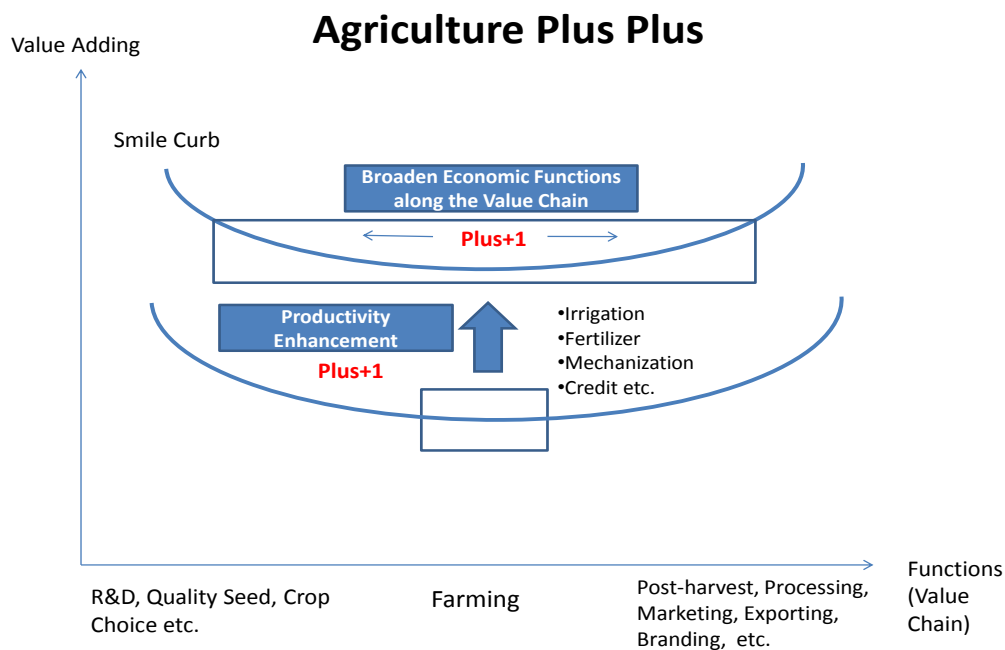
The primary thrust of Malaysia’s “Manufacturing Plus Plus” is its focus on attracting manufacturing facilities of higher value-added products and progressing along the value chain of production toward higher value-added activities by emphasizing research and development (R&D) and after-production activities such as services, distribution, and marketing.

Because an economic policy may not be appropriate at all times or for all countries, Myanmar should modify Malaysia’s success scenario. Malaysia’s “Manufacturing Plus Plus” can be a role model for Myanmar’s “Agricultural Plus Plus” strategy. Thus, this strategy aims to progress along the value chain of agriculture from farming to higher value-added activities such as agricultural R&D, development and usage of quality seeds, and post-harvest businesses including distribution and marketing (first plus). In addition, the strategy aims to shift the entire value chain to a higher level through

productivity-driven growth (second plus) (Figure 10).

Although agriculture is not a sector that absorbs a large labor force in the long run, it is definitely not a sunset industry. Moreover, agriculture especially facilitates the reduction of poverty and multiplier effects on other economic sectors. There are methods to increase agriculture’s value added that do not rely on the growth of labor and land inputs. The key is to enhance three types of productivity: labor, land, and total productivity; thus, the strategy was named “Agriculture Plus Plus.” We need to develop this broad concept to include concrete and comprehensive action plans, which is challenging for both the Myanmar government and the private sector.

Figure 10. “Agriculture Plus Plus” strategy



Source: Authors.

3. Globally linked and private sector-led industrial development

3.1. Export-oriented growth strategy⁸

As Baldwin (2004) argued, citing Rodriguez and Rodrik (2001), it is not easy to

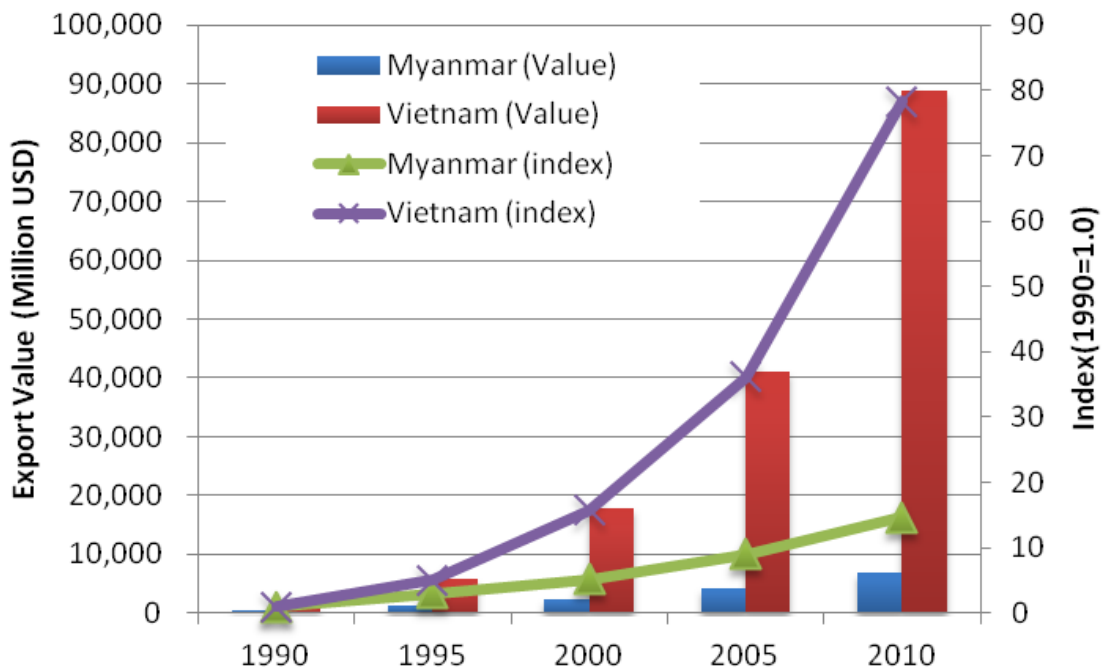
⁸ This section is primarily drawn from Kudo and Kumagai (2013).

statistically demonstrate the positive relationship between trade openness and economic growth. However, our observations in East Asia after the mid-1980s reveal that it is difficult for a country to achieve rapid growth without being integrated in the global economy. Virtually no East Asian country has achieved high economic growth without a strong export sector, and to do so, the smooth import of intermediate goods is key, especially at the early stages of export-oriented industrialization.

More than 20 years ago, Myanmar attempted to follow this trend. Soon after the military assumed power in 1988, the Myanmar government launched a series of open-door policies that allowed private firms to engage in external trade and legitimized border trade with its neighboring countries. Consequently, Myanmar’s foreign trade rapidly increased during the 1990s and 2000s, and its exports grew 15 times during this period.

Nevertheless, the value of Myanmar’s exports in 2010 was significantly lower (less than 10%) than Vietnam’s (Figure 11). Although Vietnam exported only 2.5 times more than Myanmar did in 1990, it exported more than 13 times the amount that Myanmar did in 2010. Even though the two countries initiated their open-door policies in the late 1980s, why is there such a large gap in export performance?

Figure 11. Exports of Myanmar and Vietnam



Source: UN Comtrade.

(1) Diversification of exports

One difference between Myanmar and Vietnam is the degree of diversification of their exports. Table 9 indicates the shares of the top 10 exports for Myanmar and Vietnam in 2010. Natural gas accounted for more than half of Myanmar's exports; it has been exploited offshore from Martaban Bay and transported to Thailand by pipeline since approximately 2000. In addition, another natural gas field off Rakhine State, Shwe, is under development, and it will export gas to China's Yunnan Province by pipeline from 2013. This will further increase the country's share of natural gas in its total exports. Myanmar's natural gas exports increased from USD 108.6 million in 2000 to USD 2,595.4 million in 2010. Excluding natural gas exports, Myanmar's total exports grew annually by only 6.2% from 2000 to 2010. The second-largest export item was wood (16%), followed by apparel and clothing (11%). Thus, only three goods accounted for 80% of Myanmar's total exports in 2010. Clearly, Myanmar's exports have yet to diversify.

In contrast, Vietnam's exports have been diversified. Apparel and clothing accounted for 18% of total exports in 2010, followed by footwear (13%), petroleum and its products (9%), miscellaneous manufactured articles (8%), and telecommunications and sound equipment (7%). The top 10 goods accounted for 78% of Vietnam's total exports. Moreover, the share of petroleum in Vietnam's exports declined from 33.4% in 1990 to 19.7% in 2000 and to 6.0% in 2010.

Table 9. Top 10 export goods of Myanmar and Vietnam (2010)

myanmar				Vietnam			
SITC	Description	Value(USD million)	Share	SITC	Description	Value(USD million)	Share
34	Natural gas	2595.4	52.4%	84	Apparel & clothing	11309.8	17.9%
24	Cork & wood	792.4	16.0%	85	Footwear	8185.7	12.9%
84	Apparel & clothing	556.2	11.2%	33	Petroleum & products	5372.1	8.5%
28	Ores & metal scrap	201.8	4.1%	89	Misc manufactured articles	4756.9	7.5%
23	Crude rubber	193.9	3.9%	76	Telecommunications & sound equipment	4626.2	7.3%
66	Non-metal minerals	165.5	3.3%	82	Furniture	4120.4	6.5%
85	Footwear	90.1	1.8%	77	Electrical machinery & parts	3268.1	5.2%
22	Oil seeds & oleaginous fruit	62.8	1.3%	65	Textile yarn & fabrics	2737.5	4.3%
68	Non-ferrous metals	51.0	1.0%	75	Office machines	2724.0	4.3%
27	Crude fertilizer	44.8	0.9%	32	Coal & Coke	1993.2	3.1%
	Others	196.7	4.0%		Others	14205.4	22.4%
	Total	4950.5	100.0%		Total	63299.6	100.0%

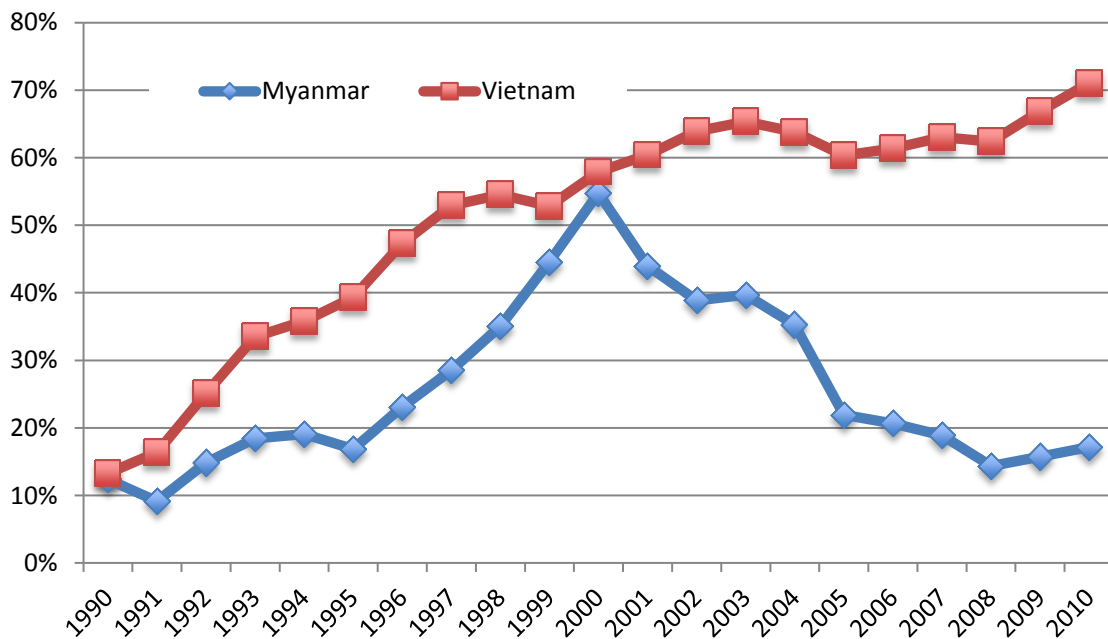
Source: UN Comtrade.

(2) Export of manufactured goods: Apparel and electric & electronic products

Although Myanmar's exports continue to be dominated by primary goods, with the

exception of apparel and clothing, Vietnam exports various types of manufactured goods. Figure 12 presents the shares of manufactured goods in Myanmar's and Vietnam's exports. These shares were nearly identical between the two economies in 1990 and 2000, approximately 12–13% and 55–58%, respectively. Vietnam, however, steadily increased its export share of manufactured goods to 71% in 2010, whereas that of Myanmar drastically declined to approximately 20% in 2005.

Figure 12. Share of manufactured goods in exports (1990-2010)



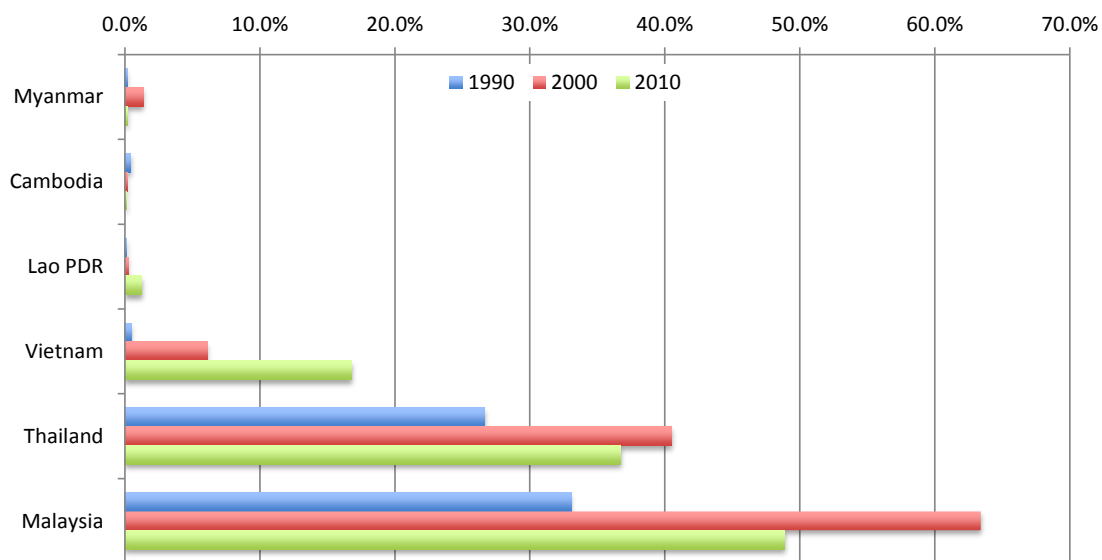
Source: UN Comtrade.

Apparel and clothing are the only manufactured goods for export from Myanmar. The export share of manufactured goods substantially increased in the late 1990s, primarily because of garment exports to the United States (US) and the European Union (EU). However, the US import ban introduced in 2003 and the EU's unwillingness to source goods manufactured in Myanmar because of human rights issues severely damaged the country's apparel exports, which declined from USD 800 million in 2000 to USD 560 million in 2010. In contrast, Vietnam steadily expanded its apparel exports, from USD 1.65 billion in 2000 to USD 11.31 billion in 2010, 20 times higher than the value of Myanmar's apparel exports.

Another important category of export goods is electric and electronic (E&E) products. Historically, E&E products comprised the primary exports for most East Asian countries. In particular, after signing of the Plaza Accord on exchange rates in 1985,

E&E multinational enterprises (MNEs) in Japan and Asian NIEs shifted their production bases to developing ASEAN countries, thus establishing production networks in the region. The dependence on E&E exports indicates a particular country’s participation in East Asian production networks. Figure 13 presents the share of E&E products in the exports of selected ASEAN countries. Thailand and Malaysia seem to be “graduating” from being dependent on massive E&E exports; while Vietnam is increasing its E&E exports. Myanmar, Cambodia, and Lao PDR seem unable to join East Asian E&E production networks.

Figure 13. Share of electric and electronic products in exports



Source: UN Comtrade.

(3) Joining East Asian production and distribution networks

As described in Kimura and Obashi (2010), participation in production networks is essential to the novel development strategy of East Asian countries.

These economies aggressively utilize MNEs in an open setting and accept almost all sorts of such firms, which enables them to participate in international production networks and form industrial agglomerations. After this stage, local firms, entrepreneurs, and engineers increase their participation through their penetration into MNEs’ production networks.” (*Ibid*, p.1).

Here, we regard the weighted Grubel–Lloyd (GL) index based on Harmonized System (HS) two-digit level as a “proxy” for the degree of participation in East Asian production networks. The GL index is a measure of the intra-industry trade of a

particular product, defined as $1 - ((X_i - M_i) / (X_i + M_i))$. It takes 1 if the trade for a particular product is reciprocal and balanced, i.e., the trade is completely intra-industry, and 0 otherwise. We calculate the GL index for the HS two-digit level and weighted it by the export share of each good and trade partner, but we limit the trade partners for ASEAN+3 countries. Thus, Figure 14 displays an intra-regional GL index.

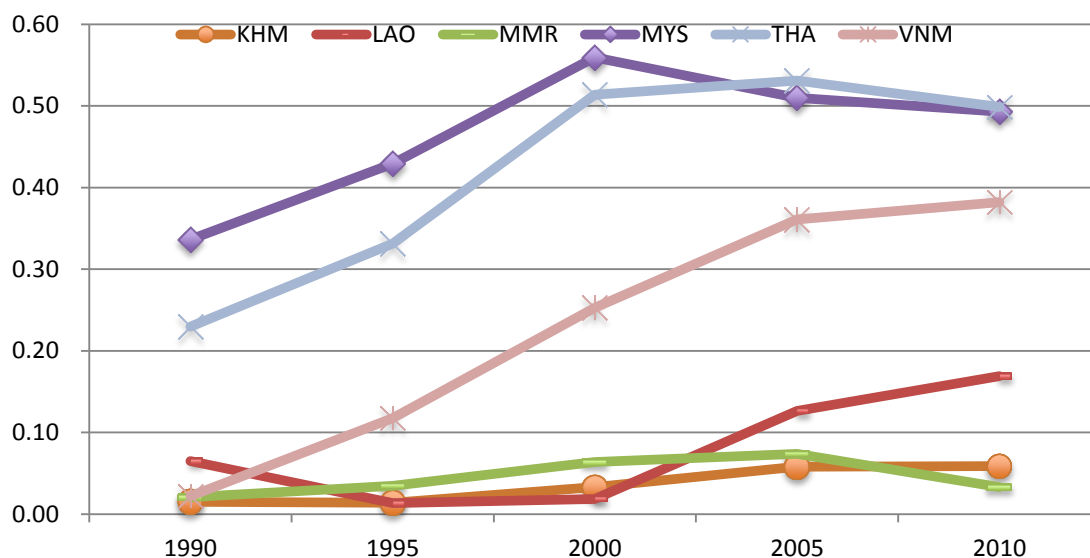
Can a higher GL index be interpreted as an indicator of tighter integration into the production networks? If two countries reciprocally export the parts and components of a particular industry, we assume the existence of a production network between them. Furthermore, if one country exports the parts and components of a particular industry, whereas the other country exports the final goods of the same industry, we assume the existence of a production network between them. However, if two countries reciprocally export the final goods of a particular industry, can we assume the existence of a production network between them?

If the case of the European Union is examined, the answer might be no. For example, Germany exporting BMWs to France and France exporting Peugeots to Germany comprise intra-industry trade but not a production network. If the case of East Asia is examined, the answer is likely yes, because the reciprocal exports of final goods in East Asia tend to be intra-firm trades. For instance, under the Innovative International Multi-purpose Vehicles (IMV) project, Toyota exports pickup trucks from Thailand to other ASEAN countries, whereas it exports minivans from Indonesia to other ASEAN countries. This is an example of intra-industry trade as well as a production network.

As mentioned above, Figure 14 indicates the intra-regional GL index for selected ASEAN countries. Note that Malaysia and Thailand, two developed ASEAN countries, have high GL indexes, whereas Cambodia, Lao PDR, and Myanmar—the latecomer ASEAN countries—have very low GL indexes. Vietnam's GL index increased from 0.02 in 1990 to 0.38 in 2010, indicating the country's participation in East Asian production networks during the previous two decades.

For many years, the West pressured Myanmar toward democracy and respect for human rights by ostracizing its military government through measures such as economic sanctions. Now, with the alleviation of the military rule that had enshrouded the country, Western sanctions have been eased or removed. This implies that Myanmar's products will regain access to global markets and there will be an influx of foreign investment. Thus, Myanmar's economy will become more integrated into regional and global economies and will have the opportunity to realize its latent potential.

Figure 14. Intra-regional Grubel-Lloyd index for selected ASEAN countries



Source: Calculated based on UN comtrade.

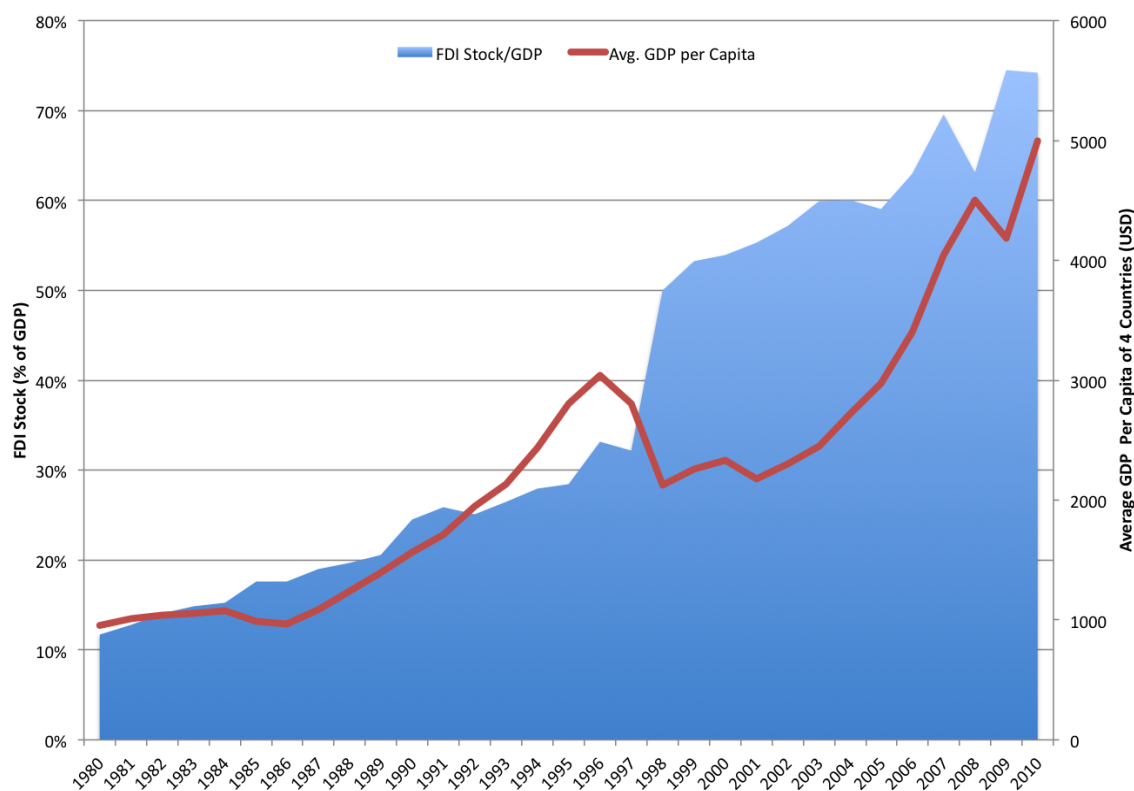
Accordingly, Myanmar's exports will increase and its export goods and destinations will diversify. For this to happen, Myanmar must first demonstrate its ability to host an export-oriented industry. The apparel industry seems to be the litmus test for this step. After that, becoming part of East Asian production and distribution networks for the E&E sector will be key for Myanmar to proceed to the next stage of industrialization. In addition, Myanmar should tap into intra-regional markets, such as China, India, and Thailand, as well as traditional export markets, such as the United States and the EU. Moreover, utilizing regional free trade agreements and further enhancing connectivity with these countries is important for Myanmar's export-oriented growth strategy.

3.2. FDI-driven growth strategy

During the past decades, academics and policymakers have become considerably interested in attracting inward FDI to fuel economic growth. FDI brings capital, technology, and skills to host economies. In addition, new investment projects by foreign investors can create employment in host economies. Several developing countries have attempted to attract foreign investors by offering preferential investment incentives in order to build industrial clusters and to enable the participation of local firms in global value chains. Indeed, many East Asian economies have attracted foreign investment and achieved remarkably high economic growth. Figure 15 presents past trends in the growth of inward FDI flows and the economic growth of Indonesia, Malaysia, Singapore, and Thailand. Although it is difficult to accurately measure the

impact of FDI on economic growth, it is apparent that larger FDI inflows are associated with higher economic growth in East Asia.

Figure 15. FDI stock and GDP per capita for four countries



Source: UNCTAD (2012).

Table 10. UNCTAD's FDI Contribution Index, by host region, 2009*

(Percentage shares in each variable's total for the region)

Region/economy	Value added	Employment	Exports	Tax revenue	Wages & Salaries	R&D expenditures	Capital expenditures
Total world							
Developed countries	12.7	7.5	19.3	13.9	14.6	24.2	10.5
Developing economies	12.2	7.9	17.3	14.6	15.4	24.1	11.6
Africa	21.7	7.3	21.7	37.2	18.4
East & Southeast Asia	10.5	9.9	30.9	7.7	8.9	22.5	6.2
South Asia	10.3	6.1	16.0	..	3.8
West Asia	16.8	5.5	1.9	..	15.0	..	3.8
Latin America & Caribbean	15.9	6.0	17.9	18.9	16.0	35.0	14.8
Transition economies	21.7	3.0	11.2	15.4	25.7

Source: UNCTAD (2012, p.33).

Note: Data from economies not listed in the FDI Contribution Index (because they do not cover at least four of the seven variables), are included in these calculations.

Table 10 indicates the significance of FDI in host economies in terms of value added, employment, exports, tax revenue, wages and salaries, R&D expenditures, and capital expenditures. East and Southeast Asia enjoy relatively high FDI contributions related to employment, exports, and R&D expenditures. The figures indicate that efficiency-seeking FDI has developed labor-intensive and export-oriented production facilities in this region. Among alternative determinants, market-seeking and efficiency-seeking motives constitute a fundamental incentive for multinational manufacturing firms to make direct investment in a foreign market (Markusen, 2004). Their market-seeking motives tend to be weaker toward small developing economies and, in particular, least developed countries (LDCs). In contrast, efficiency-seeking FDI is encouraged by low production costs, including the wages of workers in developing economies. Thus, it is inferred that FDI will play a more important role in job creation and export enhancement in LDCs, including Myanmar.

Drawing on the successful experiences with FDI promotion and economic growth, we envisage an FDI-driven growth strategy for Myanmar. In recent decades, Myanmar has been relatively closed to international trade and foreign investment. Whereas other East Asian economies have experienced rapid economic growth, primarily as a result of the opening up of the economy, Myanmar has experienced remarkably slow growth. However, the current government, led by President U Thein Sein, indicates the promotion of foreign investment as an important policy to accelerate economic growth. Therefore, it is becoming increasingly important to identify which policies Myanmar should implement to attract foreign investors and how FDI promotion can contribute to its economic growth.

Here, we review the current status of inward FDI in Myanmar in comparison with its neighbors. Among CLMV and Thailand, Myanmar's ratio of inward FDI to GDP is the lowest. This ratio substantially declined from 36.1% in 2000 to 18.2% in 2011, indicating that international sanctions probably affected inward FDI in Myanmar. For instance, the US has prohibited new investment by US companies in Myanmar since 1997 and implemented a trade and financial ban in 2003. Moreover, the EU imposed various sanctions, such as depriving imports from Myanmar of GSP (Generalised Scheme of Preferences) status since 1997. These successive sanctions severely damaged multinational firms' interests in investing in Myanmar.

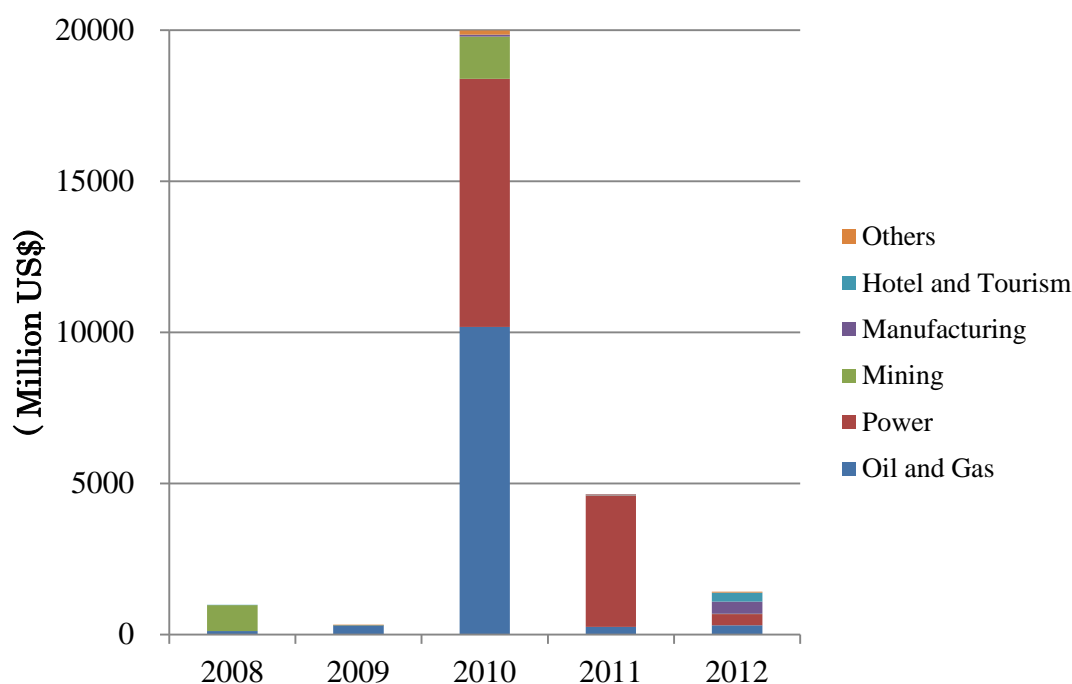
Thus, Myanmar received almost no FDI from developed countries in manufacturing and services. In contrast, most FDI in Myanmar were driven by resource-seeking motives, particularly in the energy sector, by its neighboring countries such as China and Thailand (Figure 16). Investments include hydropower projects in mountainous areas as well as gas exploitation and pipeline projects to export electricity and gas to China and Thailand.

Table 11. FDI inward stock in selected Southeast Asia countries

	FDI inward stock (Million USD)			FDI inward stock/GDP (%)			Number of greenfield FDI		
	1990	2000	2011	1990	2000	2011	2005-07	2008-10	2011
Bangladesh	477	2162	6166	1.6	4.6	5.4	24	66	18
Cambodia	38	1580	6850	4.2	43.3	52.1	21	103	37
Lao PDR	13	588	2521	1.4	35.9	31.9	27	49	13
Myanmar	281	3211	9123	10.1	36.1	18.2	6	16	11
Thailand	8242	29915	139735	9.6	24.4	41.2	377	827	137
Vietnam	1650	20596	72778	25.5	66.1	59.8	657	797	172

Source: UNCTAD (2012); IMF, *World Economic Outlook Database*, October 2012.

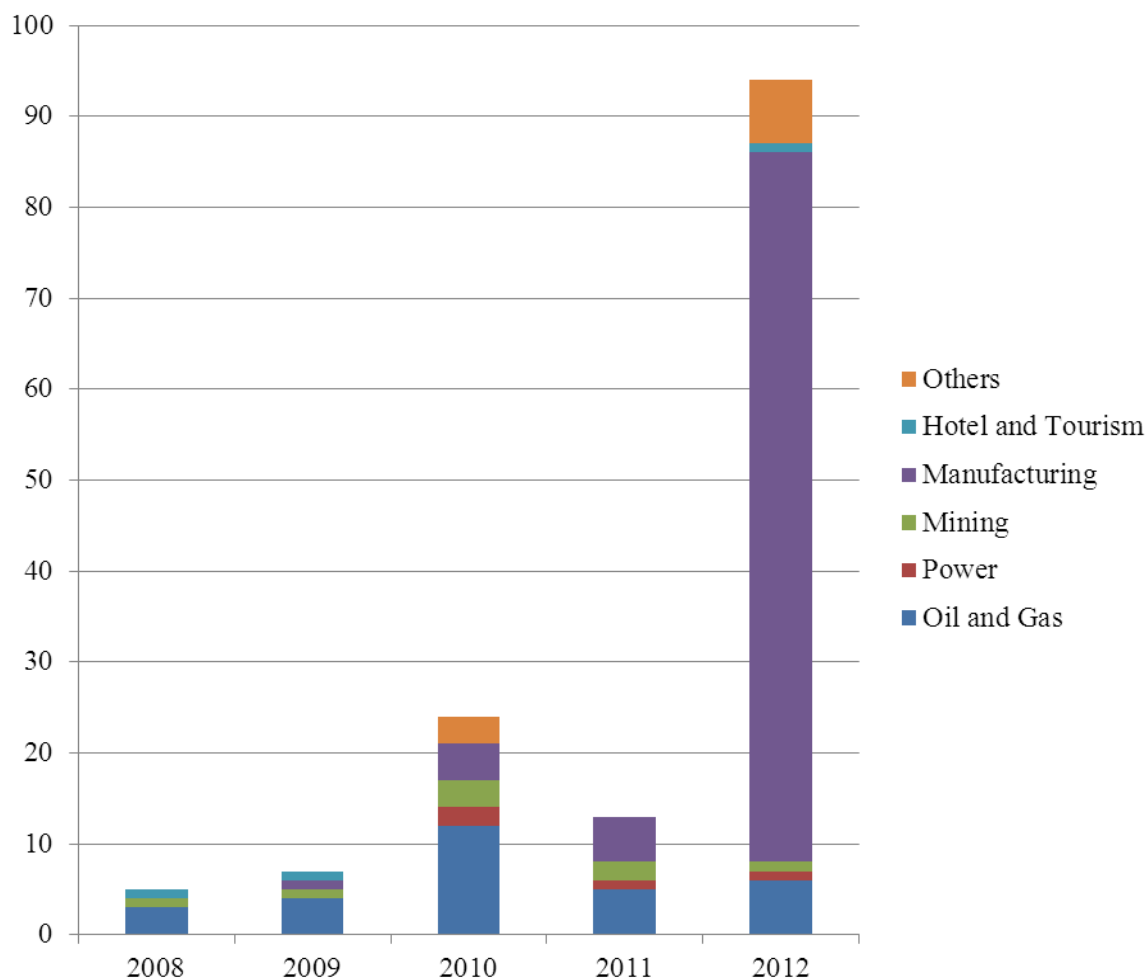
Figure 16. Approved FDI to Myanmar by sector



Source: Central Statistics Organization (CSO), *Selected Monthly Economic Indicators*, March 2013.

However, all sanctions have been either relaxed or lifted in response to the reforms of Myanmar's current government. The international business community has drastically altered its perception of Myanmar, from that an outpost of tyranny to the last economic and business frontier in Asia. Since mid-2011, business missions to Myanmar have boomed, and hotel and office rental charges have jumped three to five times. Accordingly, the number of foreign investments in manufacturing is rapidly increasing (Figure 17).

Figure 17. Approved FDI to Myanmar by sector (number)



Source: CSO, *Selected Monthly Economic Indicators*, March 2013.

To explore the potential benefits of FDI, Myanmar must first attract FDI and develop an appropriate strategy to spread its benefits across the national economy. According to the experiences of its forerunners among the ASEAN countries, general policy recommendations are simple and conclusive. In addition, the policies that enhance a country's economic development are effective to attract FDI and benefit from it. These policies include (1) developing and improving various infrastructures, (2) stabilizing the macro economy, (3) establishing an open trade policy, (4) providing capable human resources, and (5) setting up an investment promotion agency.

In contrast, the effectiveness of various policies intended to directly facilitate spillover, such as regulations on local content, joint ventures, or technology sharing, is arguable. If implemented, these restrictions are expected to negatively impact FDI inflows, particularly from developed countries. Moreover, these policies are prohibited

by the TRIMs (Trade Related Investment Measures) agreement of the WTO and are difficult to implement, although developing countries are temporarily exempted from the prohibitions as long as the policies are coherent with Article XVIII of GATT (General Agreement on Tariff and Trade), which considers the difficulties of developing countries.

There are ample lessons Myanmar can learn from the experiences of its neighboring countries. It can capitalize on its latecomer advantage and design a comprehensive and consistent set of policies to promote FDI and benefit from it.

4. Two-polar growth strategy

As previously mentioned, one of the four economic policies that President U Thein Sein announced on June 19, 2012, includes “balanced and proportionate development among states and regions with equal share of budget and taxation, foreign aid and foreign and local investment.” Thus, the Myanmar government seeks higher and balanced economic growth, which is challenging because some economic studies have identified a trade-off between higher economic growth and regional equality, particularly for countries in the early stages of development.

This section proposes a two-polar growth strategy that includes both “high” and “balanced” growth. The first growth pole is Yangon and the second is Mandalay. Nay Pyi Taw, the national capital, will develop as an administrative center, rather than as an economic or commercial one. In addition, we propose border development with enhanced connectivity to richer neighboring countries as a complementary strategy to the two growth poles.⁹

4.1. Balance between “balanced” and “high” growth

Currently, when many countries suffer and fail to manage regional income inequality, “balanced regional economic growth” is an attractive policy slogan. However, it is debatable whether equality with higher economic growth is feasible. Several studies have examined the relationship between economic growth and regional income inequality, finding that the latter is not merely an adverse effect of the former; the two phenomena have circular causation. Economic growth enhances economic

⁹ For details, see Kudo and Kumagai (2012).

agglomeration, and vice versa. The rationale is that inevitably, economic growth is geographically uneven because it is more advantageous to conduct business operations in certain regions as compared with others. Workers and firms tend to agglomerate in developed regions, seeking higher wages and larger markets. Thus, economic growth enhances economic agglomeration. Furthermore, economic agglomeration is a source of positive externalities such as labor pooling and knowledge spillover, enabling the provision of physical and institutional infrastructures efficiently and with limited resources. Therefore, economic agglomeration enhances economic growth. The first principle of economic development seems to be that scarce development resources should not be widely spread among regions, particularly in the early stages of development.

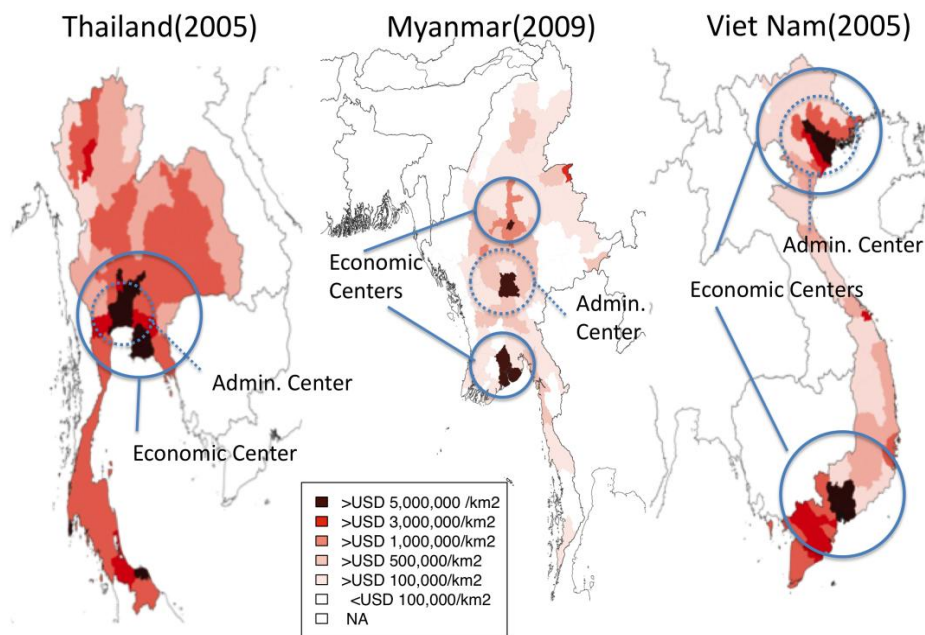
It is important to examine how the geographical concentration of economic activity in other developing countries changed during periods of rapid economic growth. The benchmarks for Myanmar seem to be Thailand and Vietnam, both of which have land areas and population sizes comparable to Myanmar's.¹⁰ Thailand and Vietnam have contrasting spatial structures of economic activities. Thailand is a typical “one-polar” country, while Vietnam is a two-polar country. Figure 18 illustrates the GDP density (GDP per km²) of Thailand, Myanmar, and Vietnam. Thailand's economic activity is obviously concentrated around Bangkok, while Vietnam has two agglomerations of economic activity: around Hanoi in the north and Ho Chi Minh City in the south. Considering Myanmar's spatial development strategy, it is important to select a one- or two-polar (or many-polar) structure.

On the basis of the population and GDP density by district, as well as the industrial distribution, we find that Yangon is eligible to be the first pole of economic growth, because both economic activity and population are concentrated there. In addition, we identify Mandalay as the second pole of economic growth, because Mandalay and its surrounding area, including the poor Central Dry Zone (CDZ), already have a certain level of economic activity and population, although the agglomeration is smaller than that in Yangon. To forecast the consequences of each development strategy, we conduct a simulation analysis using an IDE Geographical Simulation Model (IDE-GSM). We analyze the relationship among the number of development poles, Myanmar's national GDP, and Yangon and Mandalay's share in national GDP.¹¹

¹⁰ Although Vietnam has a larger population than Myanmar, both are mid-sized countries in mainland Southeast Asia.

¹¹ For details of the simulation model, see Kumagai *et al.* (2012).

Figure 18. GDP density of Thailand, Myanmar and Vietnam

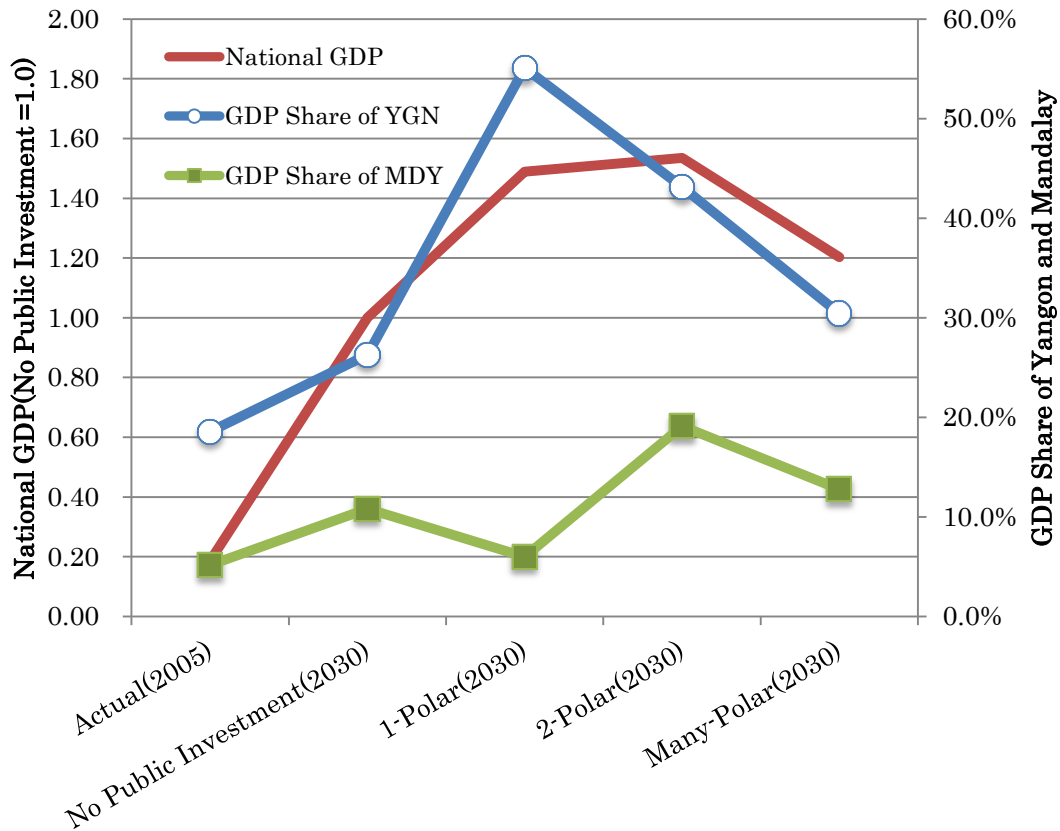


Source: Authors based on IDE-GSM dataset.

We assume that the costs of increasing productivity in a growth pole are proportional to its population. Furthermore, we assume that available public development expenditure is fixed, and that if the number of development poles is increased, the expenditure is shared by all growth pole regions in proportion to their population. In addition, the increase in productivity of each region is assumed to be proportional to the development expenditure per capita.

Considering these assumptions, the two-polar strategy would decrease Yangon's GDP share to 43.1% from 55.1%, whereas the national GDP would slightly increase by 1.54 times from 1.49 times. Moreover, Mandalay's GDP share would increase to 19.1% from 10.8%. There appears to be no trade-off between higher growth and lower inequality in the two-polar strategy. However, if development resources are spread across many poles (we assume 15 regions, including Yangon and Mandalay), the national GDP decreases by 1.20 times, whereas the Yangon's GDP share decreases to 30.4% (Figure 19).

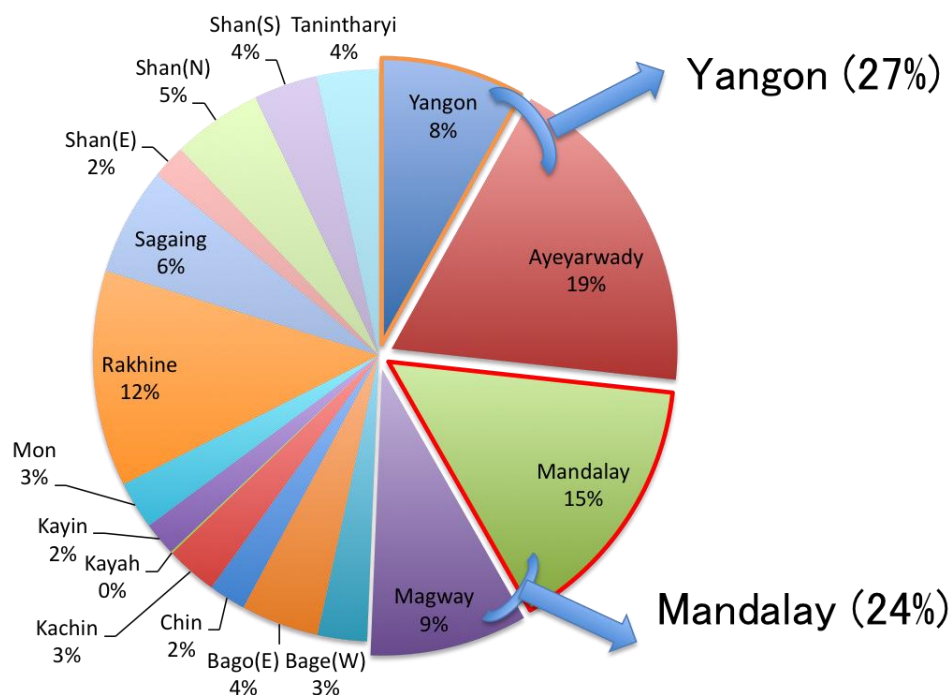
Figure 19. The number of growth poles, national GDP and GDP share of Yangon and Mandalay (as of 2030)



Source: Authors based on IDE-GSM simulation results.

In addition, from the viewpoint of poverty eradication the two-polar strategy seems appropriate. As depicted in Figure 20, Yangon, Myanmar's economic center, has a poverty share of 8.1%. Combined with neighboring Ayeyarwady, the poverty share becomes 26.7%. If Yangon addresses the problem of poverty in Mandalay and Magway, which is a part of the populated and poor CDZ, the share reaches 50.6%, marginally higher than half the national poverty population. This figure is clearly too high, indicating that a poverty eradication strategy dependent on monocentric economic agglomeration in Yangon is risky. Considering that Mandalay already has relatively high economic agglomeration, it is more reasonable for Mandalay to address its own problem of poverty as well as that of neighboring Magway (and Sagaing). For Myanmar, a two-polar economic structure such as that of Vietnam seems desirable.

Figure 20. Poverty share by region/state (2010)



Source: Authors based on UNDP (2011).

4.2. Border development with enhanced connectivity

As previously discussed, a certain degree of concentration of economic activity is inevitable and even desirable for developing countries, especially for LDCs. However, regions along the economic periphery, such as the mountainous border regions of Myanmar, need attention. It is difficult to encourage certain types of industries to invest in less developed regions with small populations.

The first principle of economic development discussed in this paper is that scarce development resources should not be spread across many regions, especially in the early stages of economic development. Considering that Myanmar is surrounded by wealthier neighboring countries, enhancing its connectivity with these nations is key to balanced development that does not divert a large amount of development resources from economic centers.

The economic effects of enhancing connectivity are analyzed using IDE-GSM. In this “enhanced connectivity” scenario, we combine the following: (a) customs facilitation measures at certain national borders in 2015–2020, (b) upgrades to roads connecting these borders that pass through major cities in Myanmar in 2015–2020, and (c) connections of Dawei and Kyaukphyu ports with India and Europe in 2020.

Table 12 indicates that, among the seven regions in which Burmese people mostly

live and the seven states in which ethnic minorities primarily live, the income gap was narrowed through enhancement of connectivity. Further, the average income of the abovementioned regions and states was higher in comparison with that in the two-polar strategy without enhanced connectivity. This simulation result reveals that enhancing connectivity considerably increases GDP in periphery regions without reducing GDP in economic centers. Moreover, all inequality measures improved in comparison with those in the two-polar strategy without enhanced connectivity.

Table 12. Inequality between seven regions and seven states in Myanmar by development strategy

	Seven Regions (vs Seven States=1.0)		GDP per capita (national avg.(2005)=1.0)		
	GDP	GDP per capita	Seven Regions	Seven States	National
Actual (2005)	3.01	1.12	1.03	0.92	1.00
No Public Investment (2030)	3.42	1.15	3.63	3.15	3.51
1-Polar (2030)	5.73	1.74	5.47	3.14	4.93
2-Polar (2030)	5.92	1.79	5.64	3.15	5.06
2-Polar+Connectivity (2030)	5.80	1.76	5.75	3.26	5.17
Many-Polar (2030)	4.02	1.30	4.35	3.33	4.10

Source: Authors based on IDE-GSM simulation results.

A two-polar growth strategy and border development with enhanced connectivity prevents over- or under-concentration and facilitates high and balanced growth. To facilitate the feasibility of this strategy, spatially targeted investment, including physical and institutional infrastructure, is required in Yangon, Mandalay, and certain border areas.

Making Yangon and Mandalay growth poles and enabling them to contribute to the alleviation of poverty is challenging. Accordingly, the establishment of special economic zones (SEZs) can be an effective policy tool to promote industrial clusters in targeted areas. Another important policy tool is the promotion of FDI, as discussed in the previous section. Without substantial FDI inflows, Myanmar, one of the least developed economies in the region, cannot be integrated into East Asian production and distribution networks. For this, too, Yangon and Mandalay are the keys to attracting FDI into Myanmar.

5. Re-emergence of Myanmar: From a missing link to a connecting node

5.1. New international environment

Despite being an ASEAN country since 1997, Myanmar's economy has been substantively insulated from regional and global economies, with the significant exception of China. This is primarily because of economic sanctions imposed by the United States and the EU. The high degree of uncertainty under the military government has prevented other ASEAN countries from enhancing their engagement with Myanmar's economy.

Myanmar's re-emergence into regional and global economies is taking place in a changing external environment, as previously discussed. During the decades of Myanmar's isolation, neighboring countries among developing Asian countries achieved remarkable economic growth. Developing Asian countries are now strongly connected to the global economy through regional production networks that have expanded the frontiers of Myanmar's neighboring countries such as Thailand, China, and India. In fact, Myanmar has long been the significant missing link in regional production networks. Paradoxically, this is the breakthrough. Although regional production networks have not expanded to Myanmar, they have reached its neighboring countries such as Thailand, China, and India. By enhancing its connectivity with these countries, Myanmar can join well-developed regional production networks and enjoy the benefits of participating in them. This strategy accelerates Myanmar's re-emergence into the global economy. In addition, Myanmar is expected to become the node connecting three of the world's most vibrant economies—China, India, and ASEAN countries.

The recent political and economic reforms in Myanmar have completely altered the landscape surrounding the country. Japan's waiving of outstanding debts worth JPY 300 billion in early 2012 was the first major response from the international community, inducing unprecedented interest in Myanmar from Japanese companies. In response to the successful by-election in April 2012, the United States and the EU began gradually lifting their sanctions. In addition, with the effective support from Japan, the Paris Club provided debt relief of USD 6 billion to Myanmar, paving the way for the World Bank and the ADB to resume fresh aid to Myanmar.¹²

¹² The Paris Club cancelled half of the arrears owed by Myanmar in two stages, rescheduling the rest over 15 years, with a seven-year grace period. Because Myanmar's arrears owed to the World Bank and the ADB were cleared owing to the Japanese support, they resumed assistance to Myanmar, offering USD 440 million in credit and a USD 512 million loan, respectively.

Thailand began committing to a comprehensive development project in Dawei, which is known as a part of the Mekong–India Economic Corridor (MIEC).¹³ This project is expected to enhance the connectivity between the Greater Mekong Subregion (GMS) and India by creating a shorter alternative route to connect the two vibrant economies. Moreover, Thailand began providing official assistance to upgrade the road infrastructure between Kawkaleik and Mawlamyine, a critical section that physically connects Myanmar, Thailand, and beyond. The re-emergence of Myanmar provided Thailand with new and feasible opportunities to expand its economic activities to Myanmar, India, and beyond.

India has been re-engaging with Myanmar as a part of its re-activated “Look East Policy.” Indian Prime Minister Manmohan Singh visited Myanmar in May 2012, marking the first visit by an Indian Prime Minister in a quarter of a century, and signed an Memorandum of Understanding (MoU) with President U Thein Sein to enhance bilateral economic ties. India and Myanmar agreed to double bilateral trade by 2015, and for this purpose, India agreed to provide USD 500 million in credit, with a focus on connectivity-related projects such as repairs and upgrades to bridges on the Tamu–Kalewa friendship road along ASEAN Highway No. 1. In addition, the two countries signed an Air Services Agreement, an agreement for border area development projects, among other agreements. Connectivity with Myanmar is expected to contribute to the economic development of the Northeast Region (NER), a relatively isolated part of the country.¹⁴

Myanmar’s relationship with China has evolved differently. Before democratization under the Thein Sein administration, China functioned as a guardian for the military government. During the absence of other development partners, China initiated several development projects, such as a deep sea port and an SEZ in Kyaukphyu, oil and gas pipelines connecting Kyaukphyu and China’s Yunnan Province, and hydropower plants in the border areas, based on its strategic interests to open an alternative route to the Indian Ocean and meet the rapidly growing demand for energy. The resulting over-dependence on China has been reviewed since the opening up of Myanmar, and

¹³ On July 23, 2012, President U Thein Sein and Thai Prime Minister Yingluck Shinawatra signed a memorandum of understanding (MoU) to collaborate on the Dawei development project, which was implemented on the basis of an MoU between Myanmar Port Authority and a Thai private developer, Italian-Thai Development, Plc. MIEC is an extended version of the Southern Economic Corridor under the Greater Mekong Subregion program led by the ADB. For details on MIEC and the Dawei development project, see ERIA (2010) and Kimura *et al.* (2011), for example. Furthermore, MIEC is recognized as a key project in the Master Plan on ASEAN Connectivity (ASEAN, 2010).

¹⁴ For more on views from India, refer to Pulipaka (2013) and Kimura *et al.* (2011), for example.

bilateral ties are currently at a crossroads.¹⁵ The suspension of the Myitsone Dam project, declared on September 30, 2011, is regarded as a historic event. Nonetheless, China is and will remain one of Myanmar's most important neighbors with regard to designing a long-term vision for its economic development in the emerging context.

These developments were triggered by the dramatic political and economic reforms in Myanmar since the inauguration of the "civilian" government, and they will help the country implement the initiatives under the ASEAN Economic Community (AEC) Blueprint and enhance its connectivity with neighboring countries and the global economy.

For this to occur, Myanmar must implement several things. First, Myanmar needs to develop domestic economic corridors with effective connectivity to international economic corridors; this has already been expanded to neighboring countries such as China, Thailand, and India.¹⁶ Figure 21 highlights Myanmar's strategic location as a regional connecting node. Myanmar can open two main routes to connect ASEAN countries and India: the sea route as the west link of the Mekong–India Economic Corridor (MIEC) and land routes with various optional routes along the trilateral highway between Thailand, Myanmar, and India.

The west link of MIEC, from Bangkok to Chennai via Dawei, is designed to enhance the connectivity between Bangkok and Chennai, where large manufacturing agglomerations have been formed by a significant amount of FDI, especially in automotive and electronics sectors. The enhanced connectivity between Bangkok and Chennai is expected to enable these manufacturing companies to improve their competitiveness by reviewing and restructuring their production networks, including further fragmentation of certain production processes. Reflecting the potential benefits, ASEAN leaders agreed to promote the completion of MIEC in the Master Plan on ASEAN Connectivity (ASEAN, 2010).

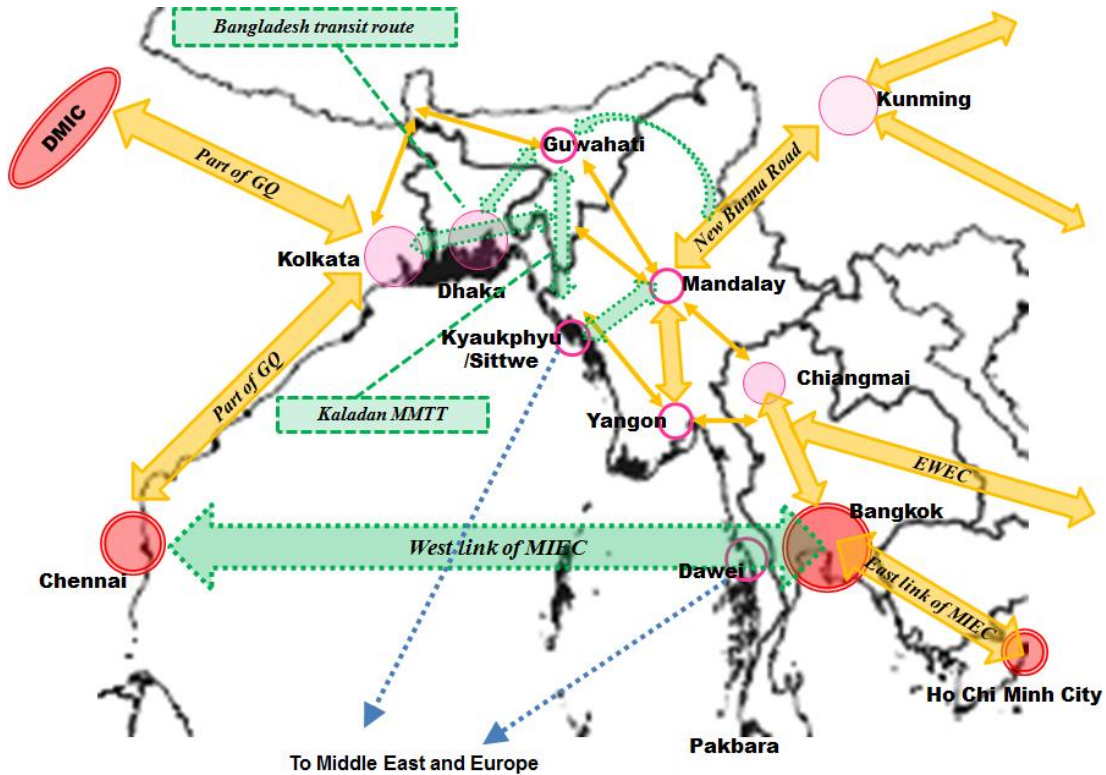
However, the MIEC is not sufficient to overcome the several challenges that the region faces. To effectively expand regional production networks, which is crucial to pursuing deepening economic integration while narrowing development gaps, physical infrastructure for land transportation must be improved. There remains a large area along the north bank of the Andaman Sea, consisting of Myanmar and Northeast India, with per capita income of less than USD 500. These economies are characterized by agriculture and other natural resource industries, as opposed to by manufacturing. For these regions, enhanced connectivity with neighboring cities and countries is essential

¹⁵ See Kudo (2012) for the history and current status of the bilateral relationship between China and Myanmar.

¹⁶ The development of domestic economic corridors is discussed later in this section.

to widen their access to large markets and invite new industries and fragmented production processes based on their location advantages.

Figure 21. Myanmar as an emerging connecting node



Source: Kimura, et al (2011).

Second, to effectively join the regional production networks, Myanmar must substantially reduce service link costs, which comprise the costs to link remotely located production blocks (ERIA, 2010). The lower the service link costs, the greater the opportunities for foreign investors to consider Myanmar as a destination for the second unbundling. Most necessary measures, such as trade liberalization and facilitation, investment liberalization and facilitation, service liberalization, infrastructure development, and facilitation measures in the transport sector, are included in the AEC Blueprint. Although Myanmar has encountered difficulties in implementing the AEC Blueprint, it can now expect unprecedented assistance from the international business community.

Finally, it is important for Myanmar to strategically identify cities to develop as industrial agglomerations. Despite the strong political motivation for balanced and inclusive economic growth, available financial and human resources are insufficient to

spread across the country. The experiences of other developing Asian countries indicate the importance of creating a critical mass in the early stage of economic development. As discussed in the previous section, Yangon and Mandalay are expected to play a key role in driving the entire economy. The simulation analysis revealed that this two-polar growth strategy is expected to enable Myanmar to achieve high economic growth as well as balanced and inclusive economic development.

5.2. Domestic economic corridors

As previously indicated, the development of domestic economic corridors is important to enhance regional connectivity because Myanmar was a missing link in the region. International economic corridors, together with production and distribution networks, extend only up to Myanmar's border. To extend these corridors inside Myanmar, we envision four domestic corridors: North–South, East–West, Right Sash (or Northeast–Southwest), and Left Sash (or Southeast–Northwest).¹⁷

The strategic importance and strategic thrust of the four economic corridors include not only supporting the formation of domestic growth poles but also connecting GMS regional networks.

The four corridors are outlined as follows.

- 1) **North–South Corridor:** The primary corridor will be the Yangon–Mandalay route (435 miles), which will connect the growth poles of Yangon and Mandalay. The corridor can be extended to Myitkyina in northern Kachin State and up to the Myanmar–China border (Kanpiketi) (919 miles).
- 2) **East–West Corridor:** The Tachileik–Kyaington–Taunggyi–Meiktila–Pakokku–Kalay–India border (Reed) route (1,142 miles) could be a major route in Myanmar. A branch of this corridor, Tachileik–Kyaington–Mongla, will be on the GMS North–South Corridor that links Thailand and China through Myanmar (158 miles).
- 3) **Right Sash (Northeast–Southwest) Corridor:** This corridor connects Muse in the north to Kyaukphyu in the south through Mandalay. Further, it will be a new trade route along with the China–Myanmar oil and gas pipeline that links Yunnan Province to the Bay of Bengal through Myanmar (714 miles).

¹⁷ Beginning in 2012, the four corridors are being surveyed by Myanmar Marketing and Research Development (MMRD) as part of an exercise by Myanmar Comprehensive Development Vision (MCDV). This exercise is being jointly conducted by the Myanmar Ministry of National Planning and Economic Development (NPED) and ERIA.

4) **Left Sash (Southeast–Northwest) Corridor:** The tripartite Myawaddy–Hpa-an–Mandalay–Monywa–Kalay and Tamu route links Thailand and India through Myanmar (942 miles). The corridor will include a Myawaddy–Mawlamyine–Dawei branch that will be an extension of the GMS East–West Economic Corridor from Da Nang to Mawlamyine and will connect to the Southern Corridor (397 miles).

The **North–South Corridor** will be the primary corridor, connecting a growth pole (Yangon) and a growth center (Mandalay), and will extend to Kachin State and up to the Myanmar–China border. This corridor is intended to serve as the primary route for border trade as well as transmission of goods from Upper Myanmar to Yangon’s ports for export. The corridor will then continue to the North–South Corridor via a short connection through Thailand to Tak Province.

The **East–West Corridor** will become a sub-route of the GMS North–South Corridor that links Thailand and China through Myanmar and will provide cost effectiveness along the trade route between India and Thailand, which has borne relatively high transaction costs due to insufficient road infrastructure. In addition, this corridor will connect to the GMS East–West Corridor (EWC), which begins at Danang in Vietnam and ends at Mawlamyine in Myanmar.

The **Right Sash (Northeast–Southwest) Corridor**, connecting Muse in the north to Kyaukphyu in the south through Mandalay, will be a new trade route between China and India along the China–Myanmar oil and gas pipeline, linking Yunnan Province to the Bay of Bengal through Myanmar. It will connect with the GMS Northern Corridor along the breadth of Yunnan Province before connecting with northern Myanmar on the west and finally reaching the Indian border at Tamu. Infrastructure development between Kyaukphyu and Muse will not only facilitate trade between China and India but also trade with ethnic groups residing and trading along the corridor.

The **Left Sash (Southeast–Northwest) Corridor** will be an extension of the GMS East–West Economic Corridor (EWEC) by including the Yangon–Hpa-an link. It will address the weak physical connectivity between Myanmar and North India and will provide a route for an attractive industrial location for exports to Thailand. Once the GMS East–West Corridor is operational, Mawlamyine and Myawaddy will become regional hubs, attracting industries from Thailand and Southeast Asia to invest along the corridor.

5.3. Contribution of economic corridors to economic development

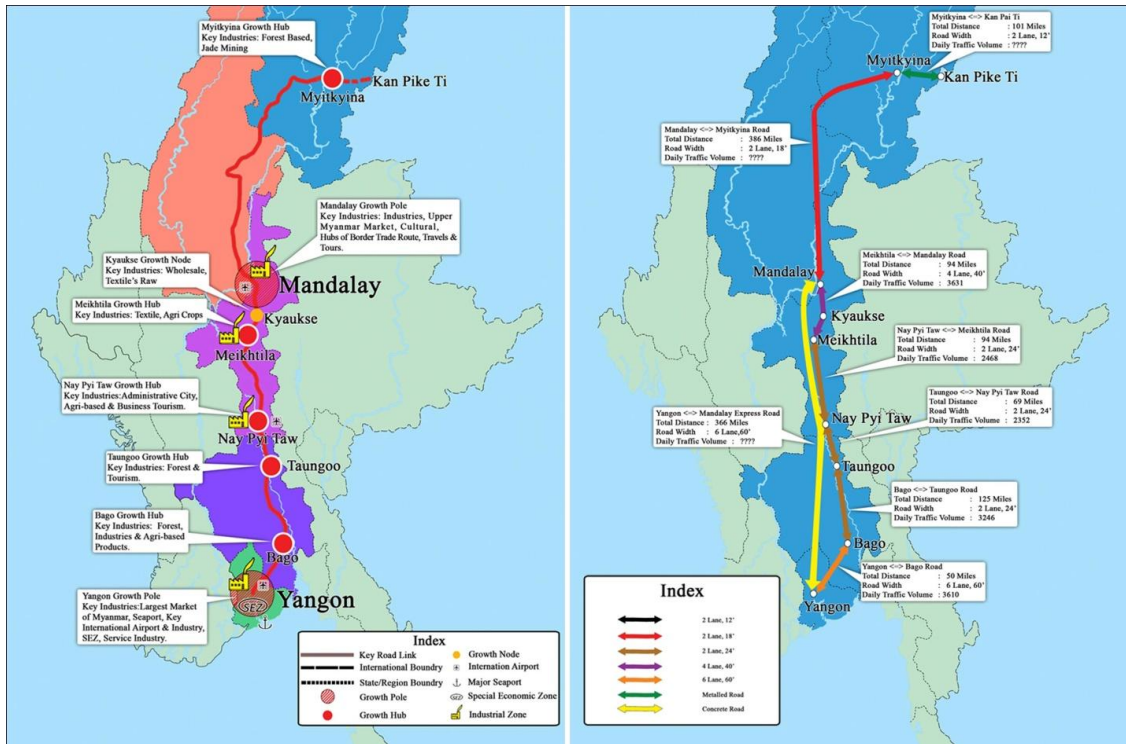
Because Myanmar's economic corridors are intended to deepen the integration of ASEAN countries with East Asia, they will reflect the improvement of international relations as well as elicit trading partners' appreciation for the economic opportunities offered by Myanmar. The immediate and most obvious benefit of the economic corridors is their contribution to border trade. Myanmar's economic corridors are essentially trade routes between China, India, Myanmar, and Thailand that have the potential for transit trade if a cross-border transportation mechanism materializes. In addition, remote locations in Myanmar may benefit from positive spillover effects, because such places are untapped eco- and cultural tourism destinations.

Short-, medium-, and long-term strategies for transportation infrastructure development and trade facilitation, which will encourage investment in transport and logistics services, create effective multi-modal transport systems, and promote the tourism sector, will help maintain activity in economic corridors and use these corridors optimally for Myanmar's industrial and economic development.

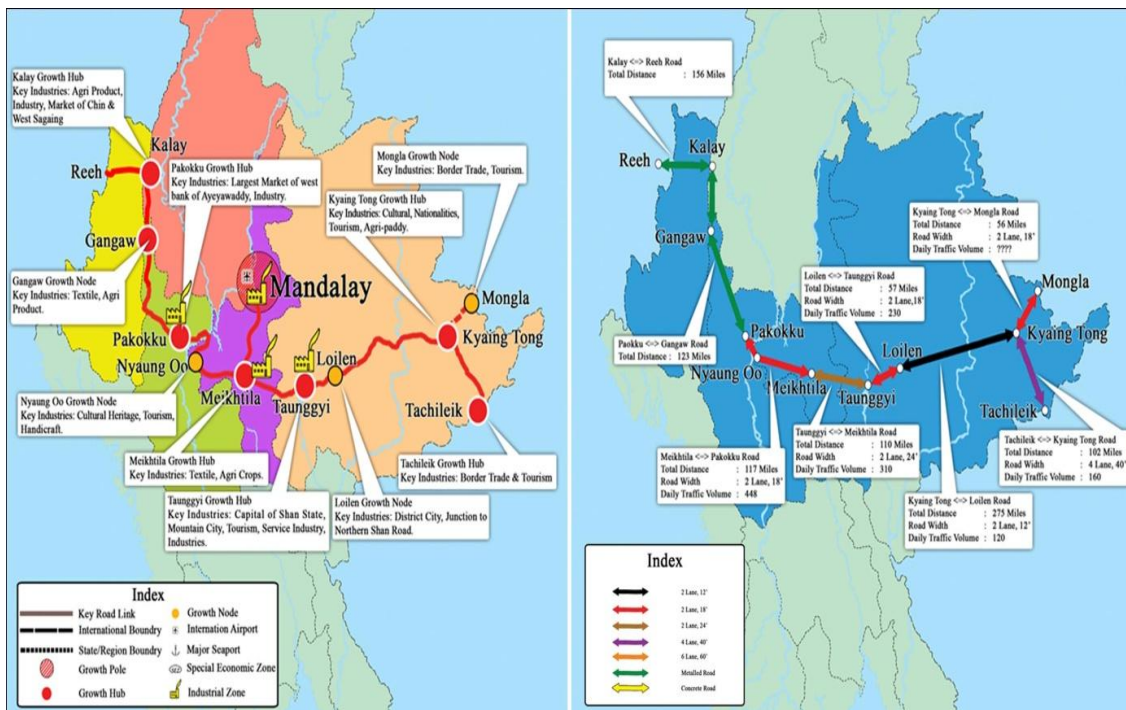
The growth poles, transport networks, and hubs along the four corridors are displayed in the following figures.

Figure 22. Four economic corridors in Myanmar

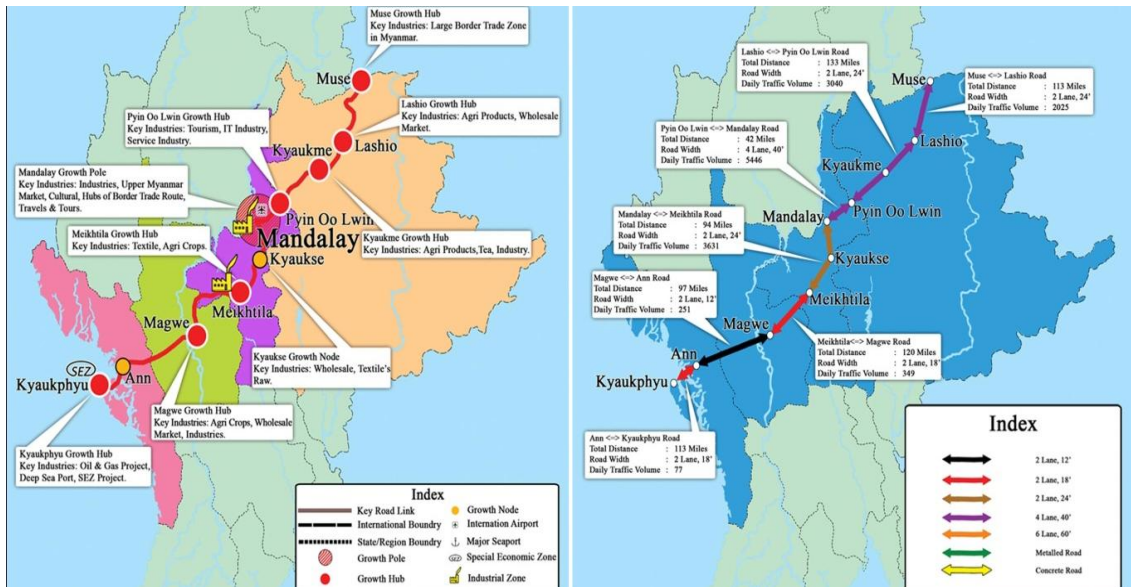
<North-South Economic Corridor>



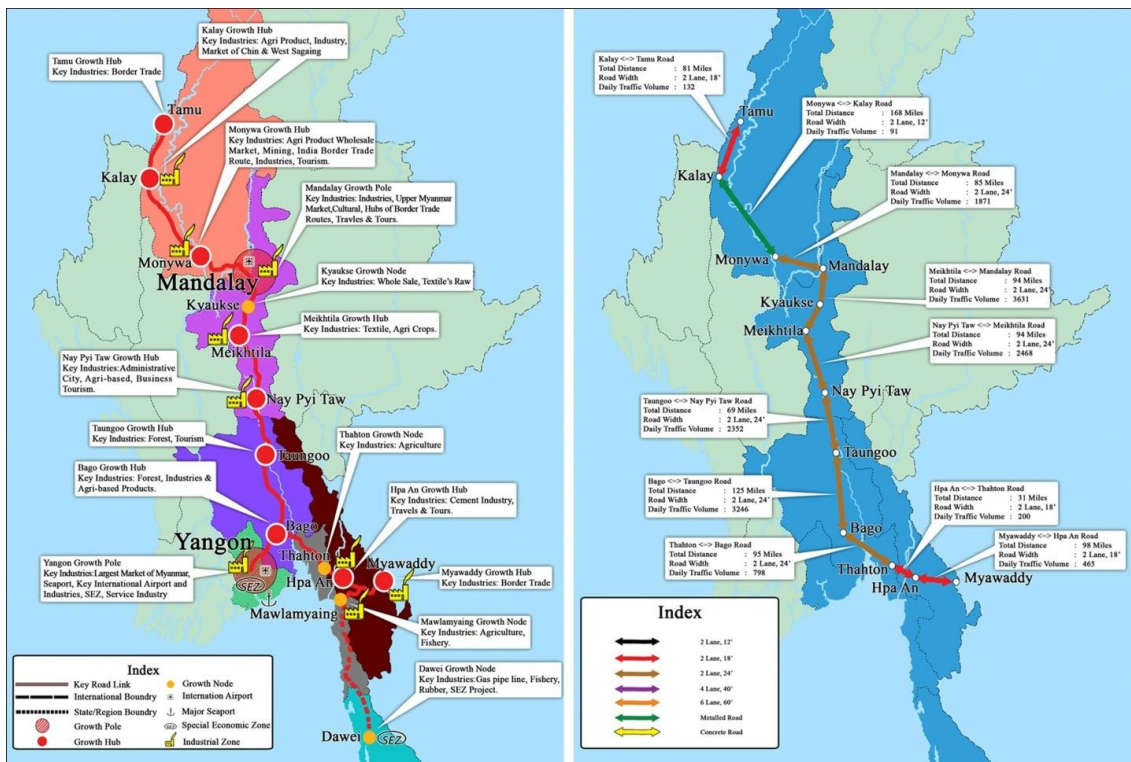
<East-West Economic Corridor>



<Right Sash Economic Corridor>



<Left Sash Economic Corridor>



Concluding remarks

In this paper, we propose five growth strategies: “Agriculture Plus Plus,” an export-oriented strategy, an FDI-driven strategy, a two-polar strategy, and a strategy to develop domestic economic corridors. These growth strategies still need to be translated into a series of implementable programs and projects. Such a task is beyond the scope of this paper and requires a shared comprehensive development vision and close consultation with all stakeholders. With these elaborate exercises that are in line with the proposed growth strategies, we believe that Myanmar will be able to pursue high, sustained, and balanced growth in the future.

However, being too optimistic about Myanmar’s growth prospects would be naïve. The road to reforms includes challenges and transition costs. The absorption capacities of institutions may render the reforms ineffective or at least hamper their effectiveness. Bureaucracy is the traditional development tool in all developing economies. Developing absorption capacities in a bureaucracy is time consuming and might significantly influence the government’s development agenda. Moreover, inadequate institutionalization in Myanmar raises the valid question regarding the extent to which the reforms are intuitive and good intentioned and the extent to which they are a product of an institutionalized decision-making process. These agendas have not been discussed in this paper.

These words of caution are not intended to discourage progress or the speed of growth-related reforms in Myanmar. However, it is important to check the weak links in the reform process and address them even as the country progresses toward openness and stability. Eventually, sustained growth for the livelihood of its people may serve as the best cushion against challenges to development in Myanmar.

References

- Asian Development Bank (ADB) (2012). *Key Indicators for Asia and the Pacific 2012*, 43rd ed., Manila: Asian Development Bank.
- Asian Development Bank Institute (ADBI) (2012). *ASEAN 2030: Toward a Borderless Economic Community: Draft Highlights*, Tokyo: ADBI.
- Association of Southeast Asian Nations (ASEAN) (2010). *Master Plan on ASEAN Connectivity*, Jakarta: ASEAN Secretariat.
- Baldwin, Richard (2004). "Openness and Growth: What's the Empirical Relationship?" Richard Baldwin and Alan Winters eds., *Challenges to Globalization: Analyzing the Economics*, Chicago: NBER and University of Chicago Press.
- Economic Research Institute for ASEAN and East Asia (ERIA) (2010). *The Comprehensive Asia Development Plan*, Jakarta: ERIA.
- International Monetary Fund (IMF) (various issues). *World Economic Outlook*, Washington, D.C.: IMF.
- JETRO (2013). *Yangon Style* (in Japanese), available at <http://www.jetro.go.jp/world/asia/mm/reports/07001289>.
- Kimura, Fukunari, and Ayako Obashi (2010). "International Production Networks in Machinery Industries: Structure and Its Evolution," *ERIA Discussion Paper Series*, No. ERIA-DP-2010-09, September 2010.
- Kimura, Fukunari, Toshihiro Kudo and So Umezaki (2011). "ASEAN-India Connectivity: A Regional Framework and Key Infrastructure Projects," in Fukunari Kimura and So Umezaki eds., *ASEAN India Connectivity: The Comprehensive Asia Development Plan, Phase II*, ERIA Research Project Report 2010, No.7, Jakarta: ERIA.
- Kubo, Koji (2013). "Rice Policies in Myanmar: A Comparative Analysis with Vietnam," in Hank Lim and Yasuhiro Yamada eds., *Economic Reforms in Myanmar: Pathways and Prospects*, BRC Research Report No.10, available at <http://www.ide.go.jp/English/Publish/Download/Brc/10.html>.
- Kudo, Toshihiro (2012). "China's Policy toward Myanmar: Challenges and Prospects," available at http://www.ide.go.jp/English/Research/Region/Asia/pdf/201209_kudo.pdf.
- Kudo, Toshihiro, and Satoru Kumagai (2012). "Two-Polar Growth Strategy in Myanmar: Seeking "High" and "Balanced" Development" IDE Discussion Paper No.371, available at <http://www.ide.go.jp/English/Publish/Download/Dp/371.html>.
- _____ (2013). "Export-Oriented Growth Strategy for Myanmar: Joining Production Networks in East Asia" BRC Policy Review on Myanmar Economy, Available at <http://www.ide.go.jp/English/Publish/Download/Brc/PolicyReview/pdf/09.pdf>.
- Kudo, Toshihiro; Satoru Kumagai; Hikari Ishido (2013). "Agriculture Plus Plus: Growth

- Strategy for Myanmar Agriculture” IDE Discussion Paper No.421, available at <http://www.ide.go.jp/English/Publish/Download/Dp/421.html>.
- Kumagai, Satoru; Keola Souknilanh; Toshihiro Kudo (2012a). “Myanmar Economy Viewed at Night,” *Policy Review on Myanmar Economy*, No.4, IDE-JETRO.
- Kumagai, Satoru; Kazunobu Hayakawa; Ikumo Isono; Keola Souknilanh; Kenmei Tsubota (2012b). “Geographical Simulation Analysis for Logistics Enhancement in Asia” IDE Discussion Paper No. 369, available at <http://www.ide.go.jp/English/Publish/Download/Dp/369.html>.
- Markusen, James R., (2004). *Multinational Firms and the Theory of International Trade*, MIT Press.
- Ministry of National Planning and Economic Development (NPED), Swedish International Development Cooperation Agency (SIDA), United Nations Children's Fund (UNICEF) and United Nations Development Programme (UNDP) (2011). *Integrated Household Living Conditions Survey in Myanmar (2009-2010): Poverty Profile, Poverty Dynamics Report*, MDG Data Report.
- Ministry of International Trade and Industry, Malaysia (MITI) (1995). *Second Industrial Master Plan: 1996-2005*, Kuala Lumpur, MITI.
- Pulipaka, Sanjay (2013). “India-Myanmar Connectivity: A Strategic Imperative”, *Issue Brief*, Vol.3, Issue 1, New Delhi: Indian Council for Research on International Economic Relations (ICRIER).
- Rodriguez, F.R. and Dani Rodrik (2001). “Trade Policy and Economic Growth: A Skeptic’s Guide to the Cross-National Evidence,” *NBER Macroeconomic Annual 2000*, Vol.15, pp.261-325.
- United Nations Conference on Trade and Development (UNCTAD) (2012), *World Investment Report 2012: Towards a New Generation of Investment Policies*, New York and Geneva.
- United Nations Development Programme (UNDP) (2011). *Integrated Household Living Conditions Survey in Myanmar (2009-2010): Poverty Profile*: Yangon, UNDP.
- _____ (2013). *Human Development Report*, New York: UNDP.
- World Bank (2007). *World Development Report 2008: Agriculture for Development*, Washington DC.
- _____ (2013). *International Debt Statistics 2013*, Washington, D.C.: World Bank.