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# Mekon Supply Chain Study Country Report
# ～Myanmar～

モンユワ経済大学商学部　Aung Kyaw
ヤンゴン経済大学商学部　Khine Tin Zar Lwin

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一般財団法人 国際貿易投資研究所（ITI）
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# Mekon Supply Chain Study Country Report Myanmar

Aung Kyaw
Associate Professor, Department of Commerce, Monywa University of Economics

Khine Tin Zar Lwin
Assistant Lecturer, Department of Commerce, Yangon University of Economics

## 1. Introduction

The objective of this study is to assess Myanmar's potential for investment relocation of Japanese firms especially for small and medium enterprises. This study examines overview of Myanmar political and economic situation, business and investment climate, investment and trade policies and logistics and infrastructures since these are the basics for enabling environment of businesses particularly for the manufacturing ones. The study also explores the current status of international supply chains by examining some specific cases of local businesses. This study also assesses challenges and issues to be considered for Japanese investors not only physical infrastructure like electric power, ports, roads and lands but also other soft infrastructure like human resource development particularly management capability and skill level of local workers, technology advancement and quality management of local businesses which are very important to make entry decisions for the foreign investors. The results of the study will help to optimize supply chains and facilitate manufacturing in Southeast Asia that is the most important investment destination and market for Japanese firms to be competitive at the global stage in the coming decades.

Masahisa and Nobuaki (2014) argued that supply chain internationalization is promoting a new cascade of agglomeration and dispersion. In the new paradigm, headquarter tasks agglomerate in major cities in developed countries, while labor intensive tasks are shed to developing countries where factors costs are low while productivity is improving due to rapid absorption of advance technology. They cited the example that Japanese domestic automobile production decreased from 10.1 million units in 2000 to 9.6 million units in 2013 while overseas production increased from 6.3 million to 16.8 million. Japan Auto Parts Industry Association's annual survey on overseas operation reveals that auto parts production affiliates increased from 1,182 in 2002 to 1,852 in 2013[i].

After a long period of nightmare for being stayed under military regime starting from 1962, Myanmar wakes again up as a last significant frontier economy of Asia (Kim, Neo, Oeni 2012). Starting from U Thein Sein administration in 2011, Myanmar has committed to reform of its both political and economic arenas. The reform agenda has become peak to attract international investors after

November 2015's election in which Daw Aung San Sui Kyi won the majority of seats for the parliament and U Thein Sein Government officially declared to peacefully handover national power to the new elected government at the first time of the nation's history. The outcome of the election has attracted to U.S and E.U governments to lift their sanctions for Myanmar so that foreign investors in Myanmar, potentially, can access to these markets in the near future. Still, Myanmar is known as one of the world's lowest wage countries which may help to foreign producers to improve their competitiveness and economic prosperity. At the same time, changing the regional and international political situations favor Myanmar as an attractive investment place such as signals to reduce Myanmar reliance on China in both political and economic tie, improved relationships between Myanmar and US government, increased tension between Japan and Chinese governments, military has taken over power in Thailand resulting lower political and economic freedom. These facts, collectively, encourage Japanese companies to actively consider Myanmar as an alternative production site to China and Thailand. The closeness of culture between two countries and being the fact that Myanmar had been once a colony of Japan have also added this sentiment of Japanese investors towards Myanmar.

The findings of this study will be imperative for labor intensive and other Japanese industries like automobile, footwear and garment firms which are keen to relocate their production facilities to another country as an alternative to China and Thailand. Therefore, this study not only will help to support decisions for relocation of production facilities of Japanese firms to Myanmar but also contribute to industrialization of Asian emerging but late industrializing country – Myanmar which may help the country to speedy integration with global supply chain and with the economies more advanced ASEAN countries so called ASEAN 6. The findings of this study will help, at least in parts, in formulating and implementing of industrial and supply chain policies and support programs of Myanmar government and supporting agencies to Myanmar economic development.

## 2. Overview of Economy and Business Climate

Myanmar is located in Southeast Asia, and it is also the biggest country in the mainland of Southeast Asia with a total area of 676,578 square kilometer. It is bordering with five neighboring countries. The length of borderline with China is the longest with 2,185 Km which is followed by Thailand with 1,800 km, India with 1,463 km, Lao PDR with 235 km and Bangladesh with 193 km respectively. It is home of totally 135 ethnical groups and has population of 51.49 million according to the report of 2014 nationwide census. The country has a long costal line with 2,832 km bordering Bay of Bengal in the west and Andaman Sea in the south. Myanmar is endowed with large offshore deposit of natural gas, arable land, rubies and jades, mineral resources and teak forests. Myanmar strategically is located at the crossroad of China, South Asia and Southeast Asia which provides a great opportunity to become Myanmar as a land link country between China, India and ASEAN.

Myanmar gained independent from British's colonial rule in 1948. It became one of the richest countries in Asia before 1962 as a result of Parliament Democracy and market economy but after two long successive military coups in Myanmar in 1962 and 1988, it was turn into one of the least developing countries in the world. Together with its close neighbors Bangladesh, Cambodia and Lao PDR, Myanmar was fallen in the list of the world's least developing 48 countries. Economy was isolated with outside world and political oppositions were repressed. After 1988 military coup by second generation army generals, the economy was opened for limited extent but largely controlled in the hands of powerful elite. Mismanagement, corruption, abuse of power for self interest, rent seeking activities were found widespread from the top to the bottom of administrative authorities throughout these periods. It was largely inherited and still pervade up to today. Poverty rate was ranging about 26% to 36% in the country depending on the state and region of the country[ii]. Low level of industrialization in the country as evidenced by industry sector contributes only 19.3% of country's GDP and only 7% of labor force employed in this sector[iii]. According to International Monetary Fund (IMF), Myanmar has the lowest HDI index (rank 189) which is the lowest among its ASEAN peers.

It is said that economy is largely dominated by military based corporations and a few handpicked private companies which are closely related to or relatives of the high rank government authorities[iv]. Small and medium size businesses which represent 99 percent of total businesses in the country are facing many difficulties including shortage of capital, skill shortage and low productivity of workforce, irregular and inadequate power supply and poor logistics facilities[v]. As a result of these coupled with increasing competition from neighboring countries they are struggling for survival.

Myanmar is a labor abundant country resulting lowest labor cost country in the region. However, skill level is modest and labor productivity is also low due to lower level of investment in training and human development. Approximately 60% of its 51 million people are of working age. Among them as many as 5 million workers are working at abroad mostly in Thailand and many more are being permanently emigrant workers[vi]. On average, a Myanmar worker add 1,500 USD of economic value in a year of work which is 70 percent less than the average of seven other Asian economies. Likewise, labor productivity is low output per worker. It is about 70% of vietnam and 20% of China and Thailand[vii]. At the end of the 2015, minimum wages law has been enacted by the parliament that needs to be applied by all firms exceeding 15 workers. Currently, daily minimum wage is 3600 Myanmar kyat (approximately 2.8 USD).

### 2.1 Political and Economic Reforms: Overview on Macroeconomic and Social Conditions

As a result of 2008 national constitution and 2010 election, new so-called democracy government headed by President U Thein Sein was elected on March 2011. New government has initiated several reform programs in both political and economic sides. Releases of political prisoners, liberalization of press, signing cease fire agreements and holding successive meetings to build peaceful relationship with ethnic arm groups, allowing the major opposition party in the parliament, letting child soldiers to go back home are some remarkable examples attempted to move towards a democratic country in the political side. Likewise, harmonizing exchange rate to better reflect the market rate, allowing operation autonomy upon central bank, liberalizing international trade and investment procedures to become more market friendly, reforming tax regime and improving transparency of government ministries are some recognizable efforts that are intended to shift to market economy in the new government regime. Due to the government commitment to these reform measures, EU and U.S governments lift most of the sanctions and use direct contact relationship with Myanmar government. As a result of this positive trend, Myanmar regains attention of international investors and tourists. Economy was accelerated during 2012 and 2014 although not sure that whether the grass-root level receives these benefits. However, the rate of these reforms are diminishing or at least moving only in a limited scale due to a number of factors including poor executing of policies at the operational level, attempting to maintain status quo by some key influential persons. Low level of government effectiveness is mainly due to ongoing influence of military in political and legislative process, poor efficiency of government departments, eager to protect the present interests of dominating business groups which are closely related to the powerful elite at the expense of general public, remain tension with major ethnic arm groups, unclear distribution of power between regional and federal government bodies and volatile local currency combined with weak economy which is mainly due to heavy reliance on resource economy and undeveloped financial sector. As a result, disputes of land ownership mainly between military and local public, high level corruption in the conduct of government operation and approval of large public projects, weak institutions and legal framework, complex and unfair tax system, weak rule of law are remain unsolved. As a result of these, the 2014 Economic Freedom Index from the Heritage Foundation ranks Myanmar 162nd in the world out of 178, and the country is ranked 40th out of 41 countries in the East Asia Pacific region. In 2013 Corruption Perceptions Index, Transparency

International rated Myanmar 157th out of 177 countries, though this was a jump up from its 2012 rating of 172nd out of 177th countries[viii].

In the 2015 edition of Doing Business, Myanmar ranks 177th out of 189 economies. The Bertelsmann Stiftung's Transformation Index (BTI) 2014 rated Myanmar score 3.00 in political transformations and rated score 2.14 in economic transformations in the scales between 1 and 10.

Despite having many weaknesses in the present situation, Myanmar has inherent strengths in its resources endowment and stratgic location. Myanmar accounts for 90 percent of world's jade production, top producer of rubby and sapphires. 12.25 millon hectares, 25 largest endowment of arable land and ten time per capita of water endowment of China and India. It has more than 31.4 million of young working population. Large endowment of oil and gas currently ranked at 46th in term of proven gas reserve. Crossroads between Bangladesh, China, India, Laos, Thailand that are home to world's 40 % of population[ix]. Regaining access to quota free to EU market and improving relationship with US government attract investors to invest in Myanmar as a manufacturing base. The world's super power country USA has attempted to improve relation with Myanmar government by hoping positive change and a number of US sanctions over Myanmar have released as a result although there are some restrictions remain. ASEAN business outlook 2015 interviewed the outlook of 588 US exectives on the future prospect the investment in ASEAN 10 countries explored 91 % of executives predicted that profit potential of Myanmar will be increased in 2015 which is the highest rate among ASEAN countries showing US companies are interesting to invest in Myanmar[x]. Myanmar has a strong potential to become China alternative for factory sites since the labor cost of China are increasing. In addition, US, EU and Japanese investors prefer to invest in Myanmar due to political and cultural reasons. In the age of gloablization, International supply chain is expanded in line with the economic theory of industry aggromeration and dispersion.

From the very postive side, the outcome of 2015's elction result is being regarded as free and fair by most of the international and internal observers. Very high potential movement from so-called miliary-controlled democracy to people-control democarcy has been seen in the election result when the Daw Aung San Su Kyi led National League for Democracy Party won about 80% of the parlimantary seats. Present government led by U Thein Sein accepted election result and offically declared to handover national power to the new elected government. A number of reform measures including enhancing rule of law, capacity building of government staffs, enacting and enforcing anti-corruption pratices from the political aspects are hopefully to be seen. Likewise, from the economic aspects, measure toward more market-oriented economy by removing monopoly practices in some of the remaining areas like media and broadcasting, banking and mining are hoped to see. Therefore, The country's ability to link with global supply chain depends upon new elected government's capacity of effective formulation and implementation of the right policy and strategy by using the nation's inherent strength and taking maximum advantages from opportunities given from the dynamic environment while at the same time minimizing its weaknesses such as low labor productivity, poor logistics infrastructure, weak rule of law, delay in breaucractic procedures and avoiding threats by maintaining the right balance upon the super power of its neigboring China against US and EU.

## 2.2 Foreign Direct Investment

At to date, majority of FDI are concentrated in resource sectors – Gas and Oil – which represent 68.9% of total FDI. FDI into manufacturing sector is only at 10% and the remaining is going into 9 different sectors. As the date of 31.5.2015, as shown in table 1, totally 929 businesses were allowed to invest with the capital of 56,536.453 US millions. In term of capital invested, majority are invested in the oil and gas and power projects. Manufacturing hosts the largest number of firms with 497 enterprises but in term of capital invested it represents only 10% of total invested capital.

**Table 1. Foreign Investment of Permitted Enterprises As of (31/5/2015) (By Sector)**

| Sr. | Particular | Permitted Enterprises | | |
|---|---|---|---|---|
| | | No. | Approved Amount ( US $ in millions ) | % |
| 1 | Oil and Gas | 151 | 19641.778 | 34.74 |
| 2 | Power | 8 | 19324.542 | 34.18 |
| 3 | Manufacturing | 497 | 5653.850 | 10.00 |
| 4 | Transport & Communication | 28 | 3183.442 | 5.63 |
| 5 | Mining | 70 | 2868.683 | 5.07 |
| 6 | Real Estate | 29 | 2277.771 | 4.03 |
| 7 | Hotel and Tourism | 57 | 2208.720 | 3.91 |
| 8 | Livestock & Fisheries | 34 | 452.835 | 0.80 |
| 9 | Agriculture | 17 | 242.686 | 0.43 |
| 10 | Industrial Estate | 3 | 193.113 | 0.34 |
| 11 | Construction | 2 | 37.767 | 0.07 |
| 12 | Other Services | 33 | 451.266 | 0.80 |
| **Total** | | 929 | 56536.453 | 100.00 |

**Source: www.dica.gov.mm**

Table 2 shows foreign investment of existing enterprises operated Myanmar as of 31 May 2015. Although the figures are considerablly different, the percentage are not much different from Table 1.

**Table 2. Foreign Investment of Existing Enterprises As of (31/5/2015) (By Sector)**

| Sr. | Particular | Permitted Enterprises | | |
|---|---|---|---|---|
| | | No. | Approved Amount ( US $ in millions ) | % |
| **1** | Oil and Gas | 93 | 18718.361 | 40.47 |
| **2** | Power | 7 | 13294.542 | 28.75 |
| **3** | Manufacturing | 407 | 4422.339 | 9.56 |
| **4** | Transport & Communication | 19 | 3007.212 | 6.50 |
| **5** | Mining | 10 | 2339.035 | 5.06 |
| **6** | Hotel and Tourism | 41 | 1948.384 | 4.21 |
| **7** | Real Estate | 17 | 1496.318 | 3.24 |
| **8** | Agriculture | 14 | 214.005 | 0.46 |
| **9** | Livestock & Fishery | 16 | 193.423 | 0.42 |
| **10** | Industrial Estate | 2 | 179.113 | 0.39 |
| **11** | Other Services | 31 | 434.641 | 0.94 |
| **Total** | | 657 | 46247.373 | 100.00 |

**Source: www.dica.gov.mm**

The major investors into Myanmar until 2015 are China with 33% of total FDI amount, followed by Singapore and Hong Kong with 18.9% and 16.3% respectively. Among EU countries, UK alone included in the top ten investors list which stands at fourth place with 7.33%. Republic of Korea and Thailand stand at fifth and six places respectively with around 7% of the total FDI. India stands at 10$^{th}$ and Japan at 12$^{th}$ respectively with 1.17% and 0.66% of total FDI in Myanmar.

### 2.3 Trade Openness

Concerning with trade openness, Myanmar export volume was amounting USD 9.043 billion in 2013 and import volume was amounting USD 10.11 billion in the same year resulting deficit balance in its international trade according to CIA's fact book. According to the World Bank Group, trade deficit was 2.02 billion in 2012, 1.70 billion in 2013 and 1.22 billion in 2014. It is estimated that 70% of trade is conducted through sea trade via international ports whereas 20% is done through border trade and the rest are conducted through other means including flights and rails[xi]. Noted that both export and import figures are largely undervalued because although it is difficult to know exactly the amount of smuggle trade. One of the big problems of Myanmar border trade is government's unable to control smuggle trade via from very small scale to large scale trade which may involve the large local companies. There are so many routes to pass border which are normally controlled by arm forces either government military or ethnical arm forces by which smugglings take place by paying bribes to these arm forces.

Therefore, there are three types of trade routes in Myanmar – sea, border and illegal trades. Usually, from valuable products such as teak and hardwoods, jade, ruby, mineral products including rare earth to cattle and wild animals are informally exported to neighboring countries through illegal routes. Likewise, consumer goods, electrical components like mobile phones and computer parts and fuels are illegally imported daily. Some analysts estimated that trade volume in the informal trade are up to ten times larger than that of formal trade[xii]. Formal border trades with neighboring countries are allowed through border trading check points. Currently, 11 cross-border trading points are opened for cross-border trade with four neighboring countries. These are 4 with China (Muse, Laiza, Lweje and Chin Shaw Haw), 4 with Thailand (Myawaddy, Tachelaik, Kawthaung and Myeik), 2 with India (Tamu and Reed) and 1 with Bangladesh (Maungtaw). The most important trading routes and check points are Muse- Rueli (with China), Terchelaik-Meisai and Myawaddy-Meisouth (with Thailand) and Tamu-Moeray (with India). In 2011, composition of Myanmar export was gas 38%, agriculture products 17%, mining 15%, wood 12%, garment 12%, fishery products 4%, and other items 2%[xiii]. Therefore, major export items are largely resources based products which represents 86% of all exports including gas, rice, beans and pulses, garments, fish, jade and minerals. Major export partner countries are Thailand, India, China and Japan. Major import partner countries are China, Thailand, Singapore, South Korea, Japan and Malaysia. According to International Monetary Fund (IMF), Myanmar trade data are found as follows.

**Table.3 Myanmar's Trade Data (2010-2015)**

U.S dollar (Million)

| Year | Total Export (FOB) | Gas Export (% of total export) | Total Import (CIF) | Trade balance |
|---|---|---|---|---|
| 2010/11 | 8,829 | 2,532 (28.67%) | 8,184 | 645 |
| 2011/12 | 10,241 | 3,503 (34.21%) | 10,437 | (195) |
| 2012/13 | 10,344 | 3,666 (35.44%) | 12,464 | (2120) |
| 2013/14 (Estimated) | 12,205 | 4,206 (34.46%) | 14,882 | (3090) |
| 2014/15 (Projected) | 14,966 | 5,805 (38.79%) | 17,440 | (2473) |
| 2015/16 (Projected) | 16,666 | 6,037 (36.22%) | 19,863 | (3,197) |

Source: IMF (2014)

It has been found that Myanmar trade volume is gradually increased year by year so does negative trade balance. Note that gas export contributes around 35% of total export value each year. It means, Myanmar economy largely depend on gas export.

The data collected from official website of Ministry of Commerce, Myanmar for the fiscal years ended 2015 and 2016 are shown in the Table 4. It seems export figures are covered only for goods which have been licensed from Ministry of Commerce and trade of services and other items that use pipeline for export e.g. gas are not included.

**Table 4. Comparison of Export by Commodity Groups Between Two Fiscal years**

**US Dollar (Million)**

| Sr. | Commodity Group | 2015-16 (Up to 12.6.2015) | 2014-15 (Up to 12.6.2014) | Increase (Decrease) |
|---|---|---|---|---|
| 1 | Agriculture Products | 715.377 (40.34%) | 469.039 (25.97%) | 250.338 |
| 2 | Animal Products | 1.626 (0.09%) | 1.317 (0.07%) | 0.109 |
| 3 | Marine Products | 76.492 (4.31%) | 62.040 (3.25%) | 14.452 |
| 4 | Mineral Products | 86.411 (4.87%) | 51.861 (2.72%) | 34.550 |
| 5 | Forest Products | 32.928 (1.85%) | 8.936 (0.468%) | 23.992 |
| 6 | Manufactured Products | 773.926 (43.65%) | 896.833 (47.02%) | (122.907) |
| 7 | Others | 86.524 (4.88%) | 420.687 (22.06%) | (334.173) |
| Total | | 1773.084 (100%) | 1906.723 (100%) | (113.639) |

**Source: Ministry of Commerce**

It has been seen in the table 3 that share of agriculture products sharply increased at the same time shares of other categories were slightly decreased. In general, total export of Myanmar has been slightly declined during the two fiscal years.

**Table 5. Comparison of Import Commodity Groups Between Two Fiscal Years**

**US Dollar (Million)**

| Sr. | Commodity Group | 2015 -16 (Up to 12.6.2015) | 2014 -15 (Up to 12.6.2014) | Increase (Decrease) |
|---|---|---|---|---|
| 1 | Capital goods | 1419.011 (50.56%) | 1324.192 (44.68%) | 94.819 |
| 2 | Industrial goods | 799.584 (28.49%) | 1173.852 (39.61%) | (374.268) |
| 3 | Consumers goods | 588.036 (20.95%) | 465.641 (15.71%) | 1223.95 |
| Total | | 2806.631 (100%) | 2963.685 (100%) | (157.054) |

**Source: Ministry of Commerce**

Table 5 has shown that about half of Myanmar imports are capital goods share of which slightly increase between the two fiscal years. The shares of industrial goods and consumer goods slightly decline as a result of increasing import in capital goods. In general, Myanmar imports are slightly decreased between these two fiscal years as in the case of export.

**Table 6. Comparison of Trade Routes Between Two Fiscal Years**

**US Dollar (Million)**

| Sr. | Trade route | Export | | | Import | | |
|---|---|---|---|---|---|---|---|
| | | 2015-16 | 2014-15 | Increase (Decrease) | 2015-16 | 2014-15 | Increase (Decrease) |
| 1 | Normal Sea Trade | 1094.917 (61.75%) | 1442.030 (75.63%) | (347.713) | 2340.024 (83.97%) | 2606.087 (87.99%) | (266.063) |
| 2 | Border Trade | 678.767 (38.28%) | 464.693 (24.98%) | 214.074 | 466.607 (16.63%) | 357.598 (12.06%) | 109.009 |
| Total | | 1773.084 (100%) | 1906.723 (100%) | (133.639) | 2806.631 (100%) | 2963.685 (100%) | 157.054 |

**Source: Ministry of Commerce**

As seen in Table 6, most of Myanmar trade for both export and import are done through normal trade but border trade also represents a significant role. The share of border trade has been significantly increased in export where its share rose from 25% to nearly 40% between the two fiscal years. Its import share has also been increased but normal trade still plays in the major role since over 80% of imported goods come from normal trade channel. Note that these data do not cover illegal trade which amount may be larger many times than the above figures.

## 2.4 Macroeconomic Performance

Concerning economic performance, Asia Development Bank reported that Myanmar GDP is increasing around at 6 to 8 % annually starting from 2011. Its GDP is estimated at USD 56.4 billion in 2013. GDP per capita is estimated as USD 869 which is the lowest in ASEAN. It also reported that gross domestic investment rate is around 30% in 2011 and 2012 while consumer price index is around 6% in 2013. Both current account balance and government budget show deficit around 5% of total GDP of the country while external debt is about 20% of GDP in 2013.[xiv] The World Bank Ground estimated reported that GDP growth rate of Myanmar is 7.8% while inflation rate is about 6.6% in 2014 fiscal year. International Monetary Fund (IMF) estimated that Myanmar GDP will grow above 8% in 2014 and 2015 and long term economic growth potential is around at 7% with the condition that the budget deficit is about 5% of GDP. It also estimated that budget deficit is around 4.3 and 4.4% of GDP in 2014 and 2015 and current account balance is 5.3 and 5.1% of GDP respectively. Central Bank's foreign exchange reserve is 8,743 million USD in 2015 which is equivalent to 4.3 months of total import of the country. It also reported that Myanmar GDP will be reached to 73.6 billion USD in 2015 with GDP per capital PPP is 1,420 USD.[xv]

### 2.5 Social Indicators

From the social dimension, according to The World Bank's world development indicators, life expectancy rate at birth of Myanmar is 65.94 year (male – 63.57 year, female – 68.46 year) and adult literacy rate is 93%. Fertility rate is 2.0 per woman, maternal mortality rate is 0.2% per live birth and infant mortality rate is 4.49% in 2014. Prevalence of HIV in term of percentage of total population age between 15 and 49 is 0.6%. Expected year and mean year of schooling is 9.4 years and 3.9 years which are lower than those of its CLMV peers. According to the study of McKinsey Global Institute (2013), Myanmar's working-age population numbers 46 million or 76 percent of the population. This is among the highest percentages in ASEAN.32.6 % of total population is living in the urban areas and the rest is living in rural areas. Myanmar is home of 135 ethnic groups of which Barman represents 68%, Shan 9%, Kayin 7%, Rakhine 4% and Mon 2%. Chinese and Indian represent 3 and 2% of total country's population. 89% of total population is Buddhists while Christian represents 4% (Baptist 3% and Roman Catholic 1%) and Muslim 4%. Combined percentage of government expenditures in health and education sector is reached to 7% of GDP in 2014 from 2.8 % of GDP in 2012[xvi].

### 2.6 Logistics Performance

For the logistics sector, Myanmar's per capita electricity consumption still remains the lowest among the ASEAN-10 countries, at 100 KWh in 2010. It is estimated as electricity production of Myanmar is 7.346 billion Kwh whereas consumption is 6.093 billion Kwh resulting being an electricity surplus country. But in reality, only 13 percent of population has access to electricity[xvii] and electricity breakdown is common in urban cities like Yangon and Mandalay particularly in dry season. In dry season, normally industrial zones and residential areas in Yangon receive electricity by means of rotation system[xviii], although situation has been improved during recent years.

According to the enterprise survey on 632 small, medium, large firms in Myanmar conducted by the World Bank Group during 2014, access to electricity stands at the third among major constraints facing by the firms followed after access to finance and land (Access to finance - 22.7%, Access to land -21.4%, Access to electricity- 16.9%). The World Bank Group estimated that about 94 percent of firms in Myanmar experience power outages by far the highest level among all countries in the region compared with Laos 89 percent, Bangladesh 73 percent and Vietnam 49 percent. As a result of the shortage of electricity, Myanmar also has one of the highest rates in the region for firms using or sharing their own generators for power. Among the comparator countries, firms in Myanmar choose to rely on back-up generators the most, by far, at 76 percent of all firms compared with Laos 14 percent, Vietnam 35 percent and Bangladesh 63 percent[xix]. Hydropower is the main source of fuel in the country and electricity from hydropower plants contribute nearly 70% of the total electricity generated in the country, followed by 22% produced from natural gas and 8% is from coal. According to report of KPMG, Infrastructure in Myanmar, Myanmar's average electrification grew from 16% in 2006 to 26% in 2011. Big cities are relatively well electrified: 67% for Yangon, 54% for Nay Pyi Taw and 31% for Mandalay while rural areas remain poorly electrified with an electrification ratio of about 16%. Out of 62,218 villages, 2,765 villages are electrified by the System and 14,195 villages via a "self help basis" (such as Biomass, Solar, Wind, Diesel, Mini Hydro, Biogas).

Concerning transport infrastructure, total length of road is 150,816 km of which 33,014km is paved roads.

In 2011, Myanmar's number of vehicles per 1,000 people was about 38. In comparison, Thailand's ratio was 432 and Lao PDR's was 171. The number of vehicles in Myanmar has more than doubled from 960,000 in 2004 to 2,354,000 in 2011[xx]. In term of port facilities, Myanmar currently has 9 ports along the western and southeastern coast of the country, namely: Yangon, Sittwe, Kyaukphyu, Thandwe, Pathein, Mawlamyine, Dawei, Myeik, and Kawthaung. In addition, Myanmar International Terminals Thilawa (MITT) is a private multi-purpose container terminal owned and operated by Hutchinson Port Holdings. According to official statistics from the Myanma Port Authority, Myanmar's ports handled 24 million tons of import and export freight in 2011, with the Port of Yangon handling 90% of the cargo throughput. [xxi] In aviation, Myanmar currently has a total of 69 airports, of which only 32 are operational. There are 3 international airports - in Yangon, Mandalay and Nay Pyi Taw, with 23 international airlines and 7 domestic airlines operating regular flight services between Myanmar and 19 regional destinations[xxii]. In 2011, there were 1.5 million international passengers and 1.4 million domestic passengers. For inland waterway, Myanmar has four main rivers namely Ayeyarwaddy, Chindwin, Sittaung and Thanlwin which are useful for inland water transport. Total navigable length is 6,650 Kilometer and Yangon is premier port. There are 7 inland water ports along Ayeyawaddy river. These are Pyi, Magway, Pakkuku, Minmu, Mandalay, Kathar and Bammaw. Bammaw is close to China Border. Four main ports along Chindwin river are Monywa, Kalaywa, Homemalin and Khanti. Kanti is close to India border. Chindwin river meets Ayeyawaddy near Pakkuku. Mawlamyine is major port in Thanlwin river.

Telecom sector is one of the infrastructure services which is very much necessity for business transactions, supply chain linkages and social and economic development of the country. Myanmar telecom sector was largely underdeveloped due to long been monopolized by a state enterprise, Myanmar Ports and Telecommunation (MPT). As part of a reform measure Myanmar called for tenders for telecommunications service licenses in January 2013. Two foreign companies; *Telenor* from Norway, and *Ooreedoo* from Qatar were licensed in January 2014. There are about 5,500,000 mobile phone users in the country which is about 10% of population in 2014 which is the lowest penetration rate in the region. However, mobile phone penetration rate is increasing at rapid rate and at the end of 2015 it is close to 30% of the country's population[xxiii]. In actual, mobile phone penetration rate of Myanmar is more than expected. At the start of 2016, there are 37 million of mobile phones users in Myanmar of which MPT has 18 million users, Telenor has 12 million and Ooreedoo has 7 million. For telecommunication towers, Huawai built 40 percent of towers in Myanmar which is about 1,500 across the country. Telenor group and Ooredoo won the license from MPT to build and operate national wide wireless network for 15 years. Internet and social networks like face book usage among youth population is steadily growing. It is estimated that 1.1 million of population used internet. Currently, Myanmar telecom sector is growing rapidly and competition among three mobile phone operators MPT, Telenor and Ooredoor becomes more intense.

In the World Economic Forum's Global Competitiveness Index (GCI) rankings, Myanmar comes in at 134th out of 144 overall. Looking in more detail at the GCI indicators, the country ranks outside 100$^{th}$ in 10 out of the 12 pillars. Myanmar scores worst in the areas of infrastructure (2.0 out of 7) and technological readiness (2.1), with its scores not all that much better for innovation (2.3), financial market development (2.6), higher education and training (2.4), and institutions (2.8). The overall ranking is slightly improved on the previous year (ranked 139th). According to logistic performance index of The World Bank, Myanmar is ranked as 145$^{th}$ out of total 160 nations with LPI score 2.25 whereas its CLMV peers Cambodia stands at 83$^{rd}$ and Laos at 131$^{st}$. Myanmar score is the worst in custom (1.97) followed by logistic competence (2.07), infrastructure and international shipment (2.14), tracking and tracing (2.36) and timeliness (2.83) respectively[xxiv]. Currently, logistic remains as a serious barrier that need to be tackled to link Myanmar with global supply chain.

### 2.7 Legal System

One of Myanmar's weakness found in its outdated and poor enforcement legal system. Courts are commonly notorious for corruption, complex procedures and administrative influence on judges' decision. Myanmar legal system is based on British's common law origin and mixed of both code law and customary law. Currently, Myanmar has many laws and regulations but most are outdated and inadequate. Property rights are not well defined and land seizures are still major disputes and remained unsolved. Investor protection is weak and there are still inadequate mechanisms for enforcement of contracts and settling disputes through arbitration as well as court system. However, since 2011 Myanmar attempts to reform its legal framework in order to attract foreign direct investment and more reflect to the needs of the market economy.

## 3. Policies toward supply chain development

Myanmar has rapidly tranformed its political and economic front to be more democratization and market economy starting from 2011 U Thein Sein government regime although there are many areas to be improved. This reforms measure make Myanmar more attractive as an investment place for international investors for both manufacturing businesses and retatiling businesses[xxv]. From the political front, reform measures include releasing of poltical prisoners and allowing major opposing party National Leage for Democracy (NLD) to participate in 2010 interim election as well as 2015 election[xxvi], liberalization of presses, signing cease fire agreements and building peaceful relationship with ethnic armed groups, letting child soilders to go back home, refreashing military relationship with US Army, successful helding free and fair election in 2015 November and finally agree to systematically handover national power to new elected government.

From the economic side, reforms include harmonizatin of exchange rate to better reflect the market rate[xxvii], allowing Central Bank operational flexiblity, liberalizing unnessary steps to ease and speed international trade and investment, revising tax regime to better reflect market economy, improving transparancy and disclosure of government ministries and departments and opening Yangon Stock Exchange in December 9 2015. The collective effect of these reform measures undoubtedly shine the Myanmar's potential as an investment site for the businesses and travelling sites for the tourists[xxviii].

### 3.1 Investment Policy

One of the significant move of Myanmar to attract forigen investment is issuance of Myanmar Foreing Investment Law on 2nd November 2012 which was greatly modified to improve the weaknesses of former Foreign Investment Law enacted in 1988. Subsequently, Foreign Investment Rules (FIR) Notification issued on 31st January 2013 further clarified and guranteed to foreign investors who want to invest in Myanmar. Large multinational companies like Coca-Cola, Ford Motors, Mitsubishi, Unilever, Colgate-Palmolive, Hiton Worldwide and telecommunicators like Ooredoo and Telenor were early entrants in taking opportunity to invest in Myanmar.

According to FIR notification (2013) the investment may carry out one of the following forms.

(a) Carrying out with one hundred percent foreign capital by the foreigner in other business except for the businesses prescribed with the Notification issued by the Commission under Rule 5.

(b) Carrying out the capital contribution of foreigner and citizen by concluding the contract in accord with the mutual agreement if it is formed as a joint-venture between a foreigner and a citizen or the relevant government department and organization.

(c) Carrying out in various forms of cooperation systems between the Government and private including (Build-Operate-Transfer) BOT system, BTO system or other system according to any system of Contractual Agreement.

The foreign companies that want to invest in Myanmar have to apply according to the existing Company Law to Myanmar Investment Commission (MIC) through the Directorate of Investment and Company Registration (DICA) together with the submitting foreign investment proposal. MIC is the government commission which administers exercise under the Foreign Investment Law and Myanmar Investment Law. It is also responsible for coordinating various government ministries to facilitate investment projects in Myanmar. MIC is the final approving authority for local and foreign investments and investment promotion agency for the economic development of the country. DICA serves as the Secretariat of MIC. It is responsible for investments, company administration and regional and international economic cooperation related to investment matters.

The investors who want to invest in Myanmar need to submit proposal, fill the **Proposal Form (1)** by completing the following particulars and signed by the promoter or investor:

(a) Name of investor or promoter, citizenship, address, business location, actual operating business in accord with the relevant law, location of head office of effective management, location of incorporated business organization, type of business;

(b) Facts contained in clause (a) related to person desirous to join in the joint- venture if the investment is formed as joint-venture;

(c) Documents related to the clause (a) or (b);

(d) Business and financial documents of the investor, promoter or a person desirous to join in the joint-venture;

(e) Facts related to manufacturing or service business desirous to invest;

(f) Duration of investment and construction period;

(g) Location of investment business in Myanmar;

(h) Technical know-how to be used for the production and system of sales;

(i) Type and volume of energy consumption;

(j) Quantity and value of required main machinery, equipments, raw materials and similar materials to be used in business during the construction period;

(k) Required area and type of land;

(l) Estimated amount and value of the annual production or service to be carried out from the business;

(m) Annual required foreign currency expenditure for business and estimated foreign currency income;

(n) Estimated amount, value and period of annual sales of products in local and export;

(o) Condition of economic justification;

(p) Measures for conservation and prevention plan for the environmental and social impacts according to the provisions of the relevant existing law;

(q) Form of investment in the Union;

(r) If desirous to form partnership, the draft contract, share ratio and amount of the shares to be contributed by the partners, ratio for allocation of profit and duties and responsibilities of the partners;

(s) If desirous to form limited company, draft contract, draft memorandum of association and articles of association, authorized capital of the company, type of shares, amount of share to be contributed by the shareholders;

(t) Name, citizenship, address and designation of the directors for the investment organization;

(u) Total paid up capital of the investment organization, ratio of local and foreign capital contribution and total foreign capital brought in and brought in period into Myanmar;

(v) Undertaking to follow the terms of the contract;

In addition, if the land for investment is to be lease then draft land lease contract to be signed with citizen or government departments, organizations and draft contract related to business for the joint-venture or by mutual contract shall be submitted together with the investment proposal. Although foreigners cannot own land, they can lease land up to 70 years while investor in SEZs can lease land for up to 75 year term.

After investment proposal is submitted with the above supporting documents, the investment proposal is assessed by project assessment team at DICA and request the State or Regional government and relevant ministries' comment at the same time. After proposal is completely analyzed, it is submitted to MIC meeting and once MIC has approved, issues permit. MIC considers and determines the attractiveness of each investment proposal for the country with the following criteria:

(a) Labor intensive industry with the view to create employment opportunities for the citizens;
(b) Business which enables to produce value added of products of the Union;
(c) Business which is capital intensive industry;
(d) Business applying high technology;
(e) Business producing goods and services which focuses on to causing the welfare of consumption of citizens;
(f) Business which supports to promote the living standard of the citizens;
(g) Business which support the technology and increase the capital for the small and medium enterprises operated by citizens;

Before 2011, application for MIC permit had to wait several weeks. With administrative reforms, the processing period nowadays shorten up minimum to 3 day if required documents are completed. Government's gradually changes in investment policy can be seen by looking the contribution of oil & gas sector and manufacturing sector in total FDI. In 2011, the ratio of manufacturing sector in total FDI was 11 percent while that of oil & gas sector was 33%. At the end of 2015, the ratio of manufacturing sector increased up to 26% while that of oil & gas sector declined up to 26% though it still stands at the top of the list[xxix].

Foreign investment are not allowed in some sectors. The most important sectors included manufacturing of arms and ammunition for national defence, maintenance of natural forest, prospecting, exploration and production of gems and jade stones, air nevigation and pilotage, native language periodicals and supervisory control of electric power system. In some sectors, foreign investment is allowed but only through with a local partner where the stake of local partner must be at lease a 20%. These areas are futher divided into three groups[xxx]. The first group consistes of businesses related to oil and gas infrastruture, oil refineries, railways, electronic lotteries, urban development and development of new surburbs. In these cases, the joint venture must be with a particular government entity. The second group consists of the majority of businesses related to health care, fishery, forestry, ecotourism, broadcasting, movies and foreign language periodicals. In these cases, the local stake can be owned by any domestic party but a relevant ministry in addition to permission from the MIC is necessary. The third group includes most business areas related to real estate, airlines, non-diary food and beverages, packaging, paper, plastic, rubber, many kinds of chemicals, cookware, tableware and small and medium scale power generation. For these cases, the local stake can be owned by any domestic party and only MIC approval is required.

As part of Myanmar's industry development, industrial zones were implemented since 1990s. Up to now, Yangon alone has 23 industrial zones. There are 18 other industrial zones in the country in major cities like Mandalay, Meikhtila, Pakokku, Myaung Mya, Mawlamyaine, Myeik, Bago and Pyay[xxxi]. The total number of industries in these 18 zones is 10,347. While large-scale industries occupy most of the industrial zones, the small scale industries that make up of the majority of registered private industries throughout the country.[xxxii] Moreover, 7 new industrial zones are planned to construct and some out of them have been already established in 2015. These new industrial zones are Yadanarpon (Mandalay), Tat Kon (Naypyitaw), Nan Oon (Shan State), Pa-an, Myawaddy, Three pagoda (Kayin State) and Pon nar Kun (Rakhine State).

Although these areas are established as industrial zones, infrastructure for power supply, water, transport, drainage and wastes disposal system are not completely fulfilled and effective zone management is lacking so investors in these industrial zones are still facing many obstacles and problems concern with these factors. But SEZs have different story. The Myanmar Special Economic Zone Law was first enacted in January 27 2011. But which seems to be designed only for the Dawei SEZ. Therefore, on January 23, 2014, new SEZ law was enacted to cover all SEZs in the country. SEZs were established with the objective for the development of economy by transforming areas in the country which have been selected and designated into the business centers of special advanced industry economy and commerce, tourism, agro-based industry investment, finance and export-oriented business centers. Out of the SEZs, Thilawa SEZ is a good start indicating that share price of one public company Myanmar Thilawa SEZ Holding (MTSEZ) Co., Ltd has increased six times during two year period. Thilawa SEZ is located about 25 km south-east of Yangon. Japanese industrial giants Mitsubishi, Marubeni and Sumitomo own a combined 39% stake in the SEZ management firm, Myanmar-Japan Thilawa Developent Company (MPTDC). Japanese International Cooperation Agency (JACA) owns 10% stake and Myanmar government though Thiliwa SEZ Management Committee (TSEZMC) owns 10% also. The remaining 41% is owned by a public company Myanmar Thilawa SEZ Holdings (MTSEZ). The 400 - ha initial phase out of total 2400 - ha is set for completion in 2015. A US aluminum can maker, Ball Corporation and Japan's Koyo Radiator, a maker of car parts, were the first signing firm on to the SEZ. Dawei SEZ's first phase involves an area of 1,000 – ha, which is just 5 % of total will be in service within five years. Kyaukphyu's phase one is scheduled to be completed in 2015 which is the only zone with deep-sea port with gas and oil pipelines from SEZs to China which is already in place along with some hydrocarbon storage facilities. A fourth SEZ is planned in Muse which is located in Shan state on the Chinese border with the goal of boosting the cross-border trade[xxxiii]. The industries located in SEZs will enjoy the benefits including tax holidays, long term leases, protection against nationalization and guarantees on profit repatriation. An initial five year 100% tax exemption, followed by 50% tax relief for next five years will be provided to investors and developers of SEZs. In addition, import duties on raw materials and equipment will be waived. Completed infrastructure is also given to those firms invested in SEZs. The SEZ strategy is a key part of industrialization agenda of Myanmar.

### 3.2 Trade Policy

Myanmar's trade policy objectives include systematically implementing trade policies in accordance with the market oriented economic policy, producing value-added products from primary goods to increase value-added in export, promoting international trade and facilitating exports and imports. Trade promotion organizations include Directorate of Trade Promotion and Consumer Protection under Ministry of Commerce and Republic of Union of Myanmar Federation for Chamber of Commerce and Industry (RUMFCCI). Myanmar is founding member of World Trade Organization (WTO). It believes in trade liberalization and desires for free and fair international trade. As a member of ASEAN state, Myanmar participates in preferential agreement with Asia's six countries to form regional comprehensive economic partnership (RCEP) which include Australia, New Zeland, China, India, Japan and South Korea. Myanmar is also included in the Bay of Bengal Initiative for Multi-sector Technical and Economic Cooperation (BIMSTEC) and Greater Mekon Su-region (GMS). Myanmar promotes trade with its neighboring countries though border trade. Myanmar has signed 4 Border Trade Agreements with its neighboring countries with China in August 1988, India in January 1994, Bangladesh in May 1994 and Thailand in March 1996.

Merchandise imports into (and exports from) Myanmar are governed under the Sea Customs Act (1878), Land Customs Act (1924), the Export Import Law 2012, and the Tariff Law (1992). Under the present laws and regulations, to be able to import, an importer must register a company that is to engage in trade with the DICA and register as a "trader" with the Directorate of Trade of the Ministry of Commerce. The importer is also required to join RUMFCCI. Currently, only Myanmar nationals are allowed to engage in trade, except for imports of inputs and exports of processed goods by manufacturing firms that have been registered under the Foreign Investment Law and consequently also registered as an importer and exporter with the Directorate of Trade.

All imports must be declared on an import declaration form (CUSDEC-1) and, where applicable, be accompanied by an import licence. Import licenses are issued by the Department of Commerce and Consumer Affairs, which is part of the Ministry of Commerce. Also required are an invoice, bill of landing or air consignment note, packing list, and any other certificates or permits issued by relevant government departments (for example SPS certificates from the Ministry of Agriculture and Irrigation, for the import of live plants and animals, and a certificate from the Food and Drug Administration for the import of medicines and foodstuff)[xxxiv].

The government trade policy for export intend to extend and explore the foreign market by utilizing natural and human resources effectively and to promote the export of traditional and value-added products. Priority sectors for exports included food processing and canning industry, furniture, rattan and lacquer ware and value added designed jades and pearls and value-added natural gas and petroleum. For import policy, the following goods are given priority to import

1. Capital goods which are major requirement of the State
2. Raw materials and other important commodities
3. Goods which support to public health and to export promotion
4. Products which encourage the production of import substitution

A national export strategy was prepared by the Ministry of Commerce in 2012 with the vision of "Sustainable export-led growth and prosperity for emerging Myanmar". Its major objectives are

1. To foster sustainable export-led growth and value addition for the socio-economic development of the people
2. To ensure a consistent, predictable and transparent trade policy and regulatory framework supporting strong public-private dialogue and integration to the world economy
3. To develop competitive, diversified and branded exports responding to international market opportunities and requirements
4. To leverage investment, build export-related skills and capacities, and foster technology innovation to support export growth
5. To build enabled and supportive institutions cooperating to respond to the diverse needs of current and emerging exporters
6. To increase logistics capacities and build trade facilities across the country and at the regional level

Starting from 2011, under U Thein Sein government regime, significant reforms were made to promote trade liberalization. These measures include abolishing of trade council, introducing automatic licensing, removing monopoly in trading, maintaining level playing field, relaxation on import of motor vehicle, allowing import/export license can be applied in Yangon, giving export tax exemption, allowing new export and import items and promulgating Export Import Law in 2012. Concerning promotion of export for agriculture produces, exporters are allowed to export rice and rice products starting from May 2011.

Restriction on export for peanuts, peanuts oil, red sesame, brown sesame, sesame oil and onion has been liberalized to export in 2011. For major export item beans and pluses, exporters are granted export licenses whether they are ready to cargo or not. Prior to 2011, exporters can apply licenses only when they are ready to cargo for shipment. Among the import products, petroleum has been allowed to import by the private businesses since 2009 October[xxxv].

Ministry of Commerce has announced Order No. 16/2013 in 28 February 2013 for 152 export items and 166 import items can be traded with foreign countries without licenses. However need to register according to customs clearance procedures. In order to encourage export, commercial tax has been exempted except for natural gas, teak log & scantling, hardwood log & scantling, jade, and precious stones. Commercial tax previously collected on the export of rice, pulses and beans, corn, sesame, rubber, fish and some animal products, value added products of wood, cane, and bamboo are reduced in order to encourage export.

Normally, the registered exporter has the right to export all commodities except products which are prescribed to be solely exportable by the state owned economic enterprises. These items included Niger oil, Mustard, Mustard oil, Sun-flower seeds, Sun-flower oil and all kinds of oil-extracted cakes in agriculture products, Gold, Diamond and petroleum for minerals and metal products, Ivory, buffalo, cow, elephants, horses and rare animals for animals and animal products, shrimp bran in marine products and arms and ammunitions and antiques for miscellaneous products. Banned imported items include liquor (excluding wine), beer, cigarette and prohibited products as per international conventions. To encourage imports, exemption is given to farm inputs including fertilizers, farm implements and machineries and insecticides. For commercial tax on import, majority products are collected at 5 percent and only 18 product items including automobiles are collected between 8 to 100 percent.

At present, the major trading partners include most of its neighboring countries. Among them, China stands at number one, followed by Thailand and Singapore at second and third place. Japan is 4$^{th}$ largest trade partner and India and South Korea which stands at 5$^{th}$ and 6$^{th}$ respectively. Germany is only EU country stands at top ten trading partner list of Myanmar.

### 3.3 SME Policy

SMEs account for the vast majority of registered enterprises, though the figures estimate that there are also 620,000 informal enterprises in Myanmar which represents 83% of total business establishments while the approximate number of total registered enterprises is 127,000 of which 99.4% are SMEs[xxxvi]. Myanmar's previous and current definitions of SMEs come from the Private Industrial Enterprise Law of 1990 and the updated Private Industrial Enterprise Law of 2011. In April 2012, the government established the Central Department of Small and Medium Enterprises Development (commonly referred to as the SME Development Center) under the Ministry of Industry. The SME Development Center is intended to support, give guidance and monitor the performance of SMEs.

In January 2013, the government set up Central Committee for Development of Small and Medium Enterprises with 27 members including Ministers of relating ministry chaired by the President. At the same time, Working Committee for Development of Small and Medium Enterprises is also formed with 15 members chaired by Vice-President (2). The Committees are tasked to formulate and promulgate laws, regulations and procedures for SME development, ensure that the government and private banks effectively provide financial capital for SME development, establish a network with local and foreign organizations to meet technical requirement, encourage market development of SME from rural to urban areas, make SME supporting industries for local and foreign investment to promote healthy development of market chains and to plan for nurturing human resources for SME development.

The committee is laid down the policy, encompassing the following main pillars to create the supporting environment for SME development:

(a) To support and nurture the development of important resources, namely:-

- (1) Human resource development;
- (2) Technology development and innovation encouragement;
- (3) Provision of financial support.

(b) To implement facilitating measures, namely:-

- (1) To develop basic infrastructure;
- (2) To assist in market development modernization of enterprises;
- (3) To provide favorable taxation system and good working practices (i.e. efficient and simplified procedures.)

The following institutions are also responsible for coordinating in SME related matters.

1. Ministry of Industry
2. Ministries concerned (13 ministries in Working Committee of SME Development)
3. RUMFCCI
4. Myanmar Industrial Association (MIA)
5. Myanmar Engineering Society (MES)

6. SME Development Centre (SDC)

Regarding facilitation for transformation of informal sector, Directorate of Industrial Supervision and Inspection is mainly responsible for transformation of SMEs from informal to formal sector. Moreover, SMEs Development Committee under RUMFCCI assists for the transformation by collecting the information of informal SMEs, sharing information and assisting for registration procedures and linking with trade associations[xxxvii].

The present definition of SME seems not appropriate with today's situation since it has established in 1990 in accordance with Private Industrial Enterprises Law, 1991. It defined size of business based on four dimensions – investment amount, annual production capacity, installed power and number of workers.

**Classification of SME under Private Industrial Development Law (1991)**

| Category | Investment Amount | Annual production capacity | Installed power | Number of workers |
|---|---|---|---|---|
| Micro sized or "cottage industries" | Not applicable | Not applicable | 0.25 horse power to 5 horse power | Less than 10 |
| Small sized manufacturers | 1 million Kyat | 10 million Kyat | Less than 25 horse power | 10 to 50 |
| Medium sized manufacturers | 5 million Kyat | 10 million Kyat | Less than 50 horse power | 51 to 100 |
| Large sized manufacturers | 10 million Kyat | More than 10 million Kyat | Over 50 horse power | Over 100 |

Source: Private Industrial Enterprises Law (1991)

Therefore, the first attempt to develop SME Policy is upgrading SME definition to better reflect the nature of business and changing monetary value. Therefore, SME definition draft has been prepared and got confirmation of the Parliament. According to the Small and Medium Enterprises Development Law (2015) new SME definition draft is as follow.

**The New SME Definition (31.8.2015 Approved in Parliament)**

| Sr. | Categories | No. of Employees | Capital | Turnover |
|---|---|---|---|---|
| **1** | **Small** | | (Kyat million) | (Kyat million) |
| (a) | Manufacturing sector | Up to 50 | Up to 500 | |
| (b) | Labor intensive manufacturing sector | Up to 300 | Up to 500 | |
| (c) | Wholesale Business | Up to 30 | | Up to 100 |
| (d) | Retail Business | Up to 30 | | Up to 50 |
| (e) | Servicing Business | Up to 30 | | Up to 100 |
| (f) | Except from above Business | Up to 30 | | Up to 50 |
| **2** | **Medium** | | | |
| (a) | Manufacturing sector | From 51-Up to 300 | From 500-up to 1000 | |

| | | | | |
|---|---|---|---|---|
| (b) | Labor intensive manufacturing sector | From 301 -Up to 600 | From 500-up to 1000 | |
| (c) | Wholesale Business | From 31-Up to 60 | | From 100-up to 300 |
| (d) | Retail Business | From 31-Up to 60 | | From 50-up to 100 |
| (e) | Servicing Business | From 51-Up to 100 | | From 100-up to 200 |
| (f) | Except from above Business | From 31-Up to 60 | | From 50-up to 100 |

Source: Myanmar SME Centre (2015)

Currently, Myanmar new government pays a special attention in developing SMEs and nurturing existing SMEs to become large industries and sustainable development in which social, economy and environment development. To enable to counter such challenges, it is necessary to create an environment in which enterprises, including SME could grow, survive and prosper. Hence the Government too lays down policy, encompassing following important main pillars for strengthening the development of environment for SME to growth[xxxviii]:

(a) To support and nurture the development of important main resources, namely:-

(1) Human Resource Development.

(2) Technology Development and Innovation Encouragement.

(3) Provision of Financial Support.

(b) To implement facilitating measures, namely:-

(1) To develop basic infrastructure.

(2) To assist in market development modernization of enterprises

(3) To provide favorable taxation system and good working practices

Small and Medium Industrial Development Bank (SMIDB) has started a loan program for SMEs, regardless of their sector. The loans are available for 1-year terms, at an interest rate of 8.5%, with collateral. The terms are similar to standard commercial loans in Myanmar, though the interest rate is lower than the near-universal 13% on commercial loans[xxxix].

There is widespread international interest in SME development in Myanmar. Both the German government and the Japan International Cooperation Agency (JICA) are considering programs for SMEs. GIZ is providing capacity building for SMEs through its private sector development program.

### 3.4 Logistics and Supply Chain Policy

As a member of ASEAN, Myanmar has committed to implement ASEAN Economic Community (AEC) in 2015. The AEC aims ASEAN to transform into a single market and production base, a highly competitive economic region, a region with equitable economic development and a region fully integrated into the global economy. To achieve these objectives, current implementation measures and efforts are underway[xl]. Myanmar, on its part, is attempting to achieve ASEAN vision of "The ASEAN Economic Community shall establish ASEAN as a single market and production base in 2020". In line with this, Myanmar has established major infrastructure projects and special economic zones that will help to enhance its industrial might and link with global production and supply chain network.

Major road links with Myanmar and neighboring countries. For example, Asia Highway 1 that link between Thailand and India through Myanmar (Myawaddy – Yangon – Mandaly – Tamu) has 1,650 km length within Myanmar, Asia Highway 2 that also link between Thailand and India through Myanmar (Tachilek – Meikhtila – Tamu) has 807 km length within Myanmar. And also Asia Highway 3 that link Mongolia and Kyaing Tong and link with Asia Highway 2 has passed 93 km within Myanmar and Asia Highway 4 that connected China and Thailand and linked with Asia Highway 1 in Mandalay has passed 453 km (Muse- Mandalay) within Myanmar. Totally Asia Highways will pass 3,003 km within Myanmar. These construction projects are underway. In addition, Myanmar will become the centre of ASEAN highways linked between ASEAN and India and ASEAN and China. Moreover, Myanmar will become the centre and parts of GMS Highways - East West Corridor that links between Mawlamyine and Danang, Western Corridor that link between India- Tamu- Mawlamyine and Thailand, Western Corridor that link between India- Tamu- Fangcheng and Southern Corridor between Dawei-Quy-NhonVung Tau.

To take its geographical advantages, Myanmar has developed special economic zones. Special Economic Zone (SEZ) Law was promulgated in January 2014. Myanmar special economic zones are intended to take advantage of its regional network links with neighboring countries Thilawa project is an example to link between India Ocean and Pacific Ocean trading routes. Up to now, three SEZs are developed. Dawei project is developed cooperated with Thailand, Kayukphyu project with China and Thilawa project with Japan. Although not included in SEZ, Sittwe Deep water project is implemented cooperation with India to connect India's landlocked northern part with Ocean through Kaladan river. All of these development projects are subject to critics for their social and environmental impacts and land seizures, although they are underway.

### 3.5 Looking forward: Likely Policy Changes in the New Government Regime

Starting from February 1 2016, the new parliament will be called with the newly elected members. The president is elected indirectly by the Presidential Electoral College which is made up of three sections with the first drawn from members of parliament representing each region or state, the second member of parliament representing population at large and elected from the township and the third comes from members of parliament representing military directly appointed by the chief commander of army[xli].

Each committee nominates a candidate ad then the parliament convenes the Electoral College to decide the winners who will become the president and the two runners-up becoming vice-presidents. The president serves a five-year term and may be re-elected once. The president then may choose the cabinet members except for the ministers of border affairs, home affairs and defense who are directly chosen by the chief commander of the army[xlii]. Up to now, who will become president is still a puzzle and the NLD party that won about 80% of seats in the 2015 elections does not yet officially declared their proposed president although there are many guesses. According to 2008 National Constitution, Daw Aung San Su Kyi was banned to become the president. But there some talks and negotiations have been made between Daw Aung San Su Kyi and big power holders including the formal chief commander of army Senior General Than Shwe and the present chief commander of army Senior General Min Aung Hlaing. Accordingly, there is still a thin chance for Daw Aung San Su Kyi to become the president of Myanmar.

No matter who becomes the president, there are many issues and challenges in both political and economic fronts that the new government urgently solves. First of all, NLD has to declare the member of cabinets who have both capacity and will to reconstruct the nation. Who will become cabinet members is also still a puzzle. NLD needs to form a new capable government with the mixture of capable persons within the party as well as from outside perhaps include some members of cabinets from present government. In appointing new cabinet members, NLD needs to strike the balance between who are loyal to the party for many years regardless of pain and imprisonment and those who are capable but they are not the party members or very fresh members. Daw Aung San Su Kyi said that she intends to appoint some members who are not from the party so as to construct peaceful working relationship between two major parties. In doing that, care need to be taken not to have negative impact on the unity within the party and support of loyal party members. The second challenge is to form State and Region governments since NLD won majority of seats even in ethnic dominance areas like Shan and Rakhaine States. How much extent does NLD allow to participate member of ethnic groups in the State government is also still a question. NLD needs again to take care to reconcile with the ethnical parties in forming government in their areas in order to develop mutually respectable working relationship with them.

From the political front, the momentum of discussion on National Cease Fire Agreement (NCA) with the ethnic arm forces need to be maintained or enhanced to develop real federal country including power and resource sharing between federal government and state governments[xliii]. The first thing Daw Aung San Su Kyi tends to emphasize is to restore rule of law within the country that is linked with abolishing corruption among various level of civil services particularly among the staff in the legal system that was apparently appeared in several messages from her including speech at Yale University release on September 20, 2012. The reducing of bulky government ministries without cutting efficiency is also one of the major challenges for the new government. Daw Aung San Su Kyi said that she will reduce the number of government ministries and departments without laying off the number of government staff. Concerning with foreign relation, it can be said that there will be improved relationship with US and EU in the new government regime at the same time maintaining relationship with Chinese government is necessary. There tends to increase foreign investment from US and EU and the same time there may be somewhat reducing investment from China because the future of present projects including Myintson Dam which was pending during U Thein Sein government regime is largely uncertain.

From the economic front, government policy tends to reform economic environment more market friendly and fair competition including reforming tax regime which is currently under reform but performance is still unsatisfactory partly because of protecting present interest of power-linked business groups and partly because of corruption. Forced land seizure issues from the farmers and local residents which was rooted in military regime still remains as a problem to be resolved in the new government. The custom and practices of awarding contract of public services including flyovers building in Yangon City, expanding new satellite towns and low cost housing projects to hand-picked businessmen, undue protecting the present interest of local large business groups in determining important policies including retail distribution of fuel in the country and allowing foreign banks to provide limited services only to the foreigners tend to be abolished. If the new government successfully cuts the tie between powerful elite and their cronies, as a result, more investment opportunities will be opened for would be investors including small and medium sized ones and foreign businesses. For the trade and investment policies, it is expected that there will be no significant departure from present government policies which are underway. Although, there are some signals on the shift of major foreign investment sectors gradually from power and resources-based sectors to labor intensive and high-tech industries sectors since Daw

Aung San Su Kyi commitment to promote more employment opportunities for the grass root population and promotion of human resources development including education and skill developments of youth population via both formal and vocational education.

## 4. Business Development Services

One of the SME development strategy as well as prerequisite requirement for foreign investment is high quality human resources who are capable to absorb modern technologies and management practices of investing companies very quickly. Since foreign investors cannot bring its all human resources and suppliers with them, they have to rely, at least some extent, on the ability of local human resources and suppliers. No matter how much attractive in the country's investment policy, if its quality of human resources and standard and conformance level of local businesses are very poor to be eligible as suppliers, overall attractiveness of the country as an investment site tend to decline. This is particularly important for Myanmar because its historical good education infrastructure before 1962 had been systematically destroyed by the military regime throughout over last four decades resulting lower level of human resources for international business operation and management. However, business development services for nurturing new human resources and building capacity on existing human resources and other business development services which are conducive for enabling business environment such as information portal, incubation centers and one-stop services for business to ease and speed operation are still weak. From the positive point, there is increasingly number of private and public sectors as well as non-profit sector organizations including international non-governmental organizations focus on this issue and actively involved in promoting quality and capacity of local businesses. The main international organizations participating human resource development of Myanmar are Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Japanese International Cooperation Agency (JACA), Korea International Cooperation Agency (KOICA) and Myanmar-Japan Centre (MJC).

### 4.1 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Germany is one of the nations that mainly provide assistance to promote human resources development of Myanmar for a long time. The German government's international cooperation agency, GIZ, involves a number of development projects in Myanmar including financial sector development, SME sector development, rural and border development and promoting Technical and Vocational Education Training (TVET) activities in conjunction with private and public sector organizations. In cooperation with local communities, GIZ is supporting the projects in the remote areas such as the establishment of the first Bed & Breakfasts (B&B) in the Pa-O region which may be a tourist site in the near future. GIZ also initiates and sponsors business exhibition and fair collaboration with local organizations like the Women Entrepreneur Working Group. GIZ also has close cooperation with Ministry of Commerce to implement the private sector the Trade Development Programs (TDP) aims to improve framework conditions for exports, simplify customs procedures, establishes an EU market information centre and develops measures for food safety and consumer protection. GIZ is also participating in the capacity development of government staff such as training on electric file naming in DICA office.

GIZ actively participates in the promotion of banking and financial sector in Myanmar which is very important for the economic development. GIZ cooperates with KBZ Bank, SMIDB and Yoma Bank since 2014 to provide sustainable and tailor made financial services to SMEs. In 2013, GIZ published a report that comprehensively assess banking sector of Myanmar titling "Myanmar's Financial Sector, A Challenging Environment for Banks". In October 2015, GIZ supported the creation of the Bank Financial Reporting Standard Implementation Committee (BFRIC) with the members from the Central Bank, Office of Auditor General, Institute of Certified Public Accountants, and the Myanmar Accountancy Council. This committee coordinates activities for aligning banking sector reporting with international standards.

For TVET sector development in Myanmar, cooperation between Myanmar and Germany has a long history. This cooperation entered a new phase with the start of the GIZ TVET project in 2012. The GIZ project has a new office in No. 192, Industrial Avenue Compound in Bahan Township, Yangon. The representatives from key project partners of TVET are The Ministry of Industry, The Ministry of Labor, The Ministry of Employment and Social Security and The Ministry of Education. The aim of GIZ TVET is to continue the strengthening of No.1 Training Centre in Sinde which was once very successful in nurturing technicians. In addition, GIZ supports technical assistance and training to the farmers to enhance agriculture outputs in the village areas.

From environmental aspect, GIZ supports Myanmar in the improvement of air quality monitoring (AQM) and refinement of air quality legislation as Clean Air for Small Cities (CASC) project. AQM strategy was developed with Yangon City Development Committee (YCDC).

### 4.2 Korea International Cooperation Agency (KOICA)

The Korea International Cooperation Agency (KOICA) was established as a government agency on April 1, 1991, to implement the Korean government's grant aid and technical cooperation programs for its partner countries. KOICA's assistance projects in Myanmar ranged from agriculture, environment and rural development to industry and capacity development of government staff. Three main strategies of KOICA to achieve this objective are institutional capacity building, human resource development and creating health-related resources. Accordingly, KOICA develops the program s for the capacity enhancement of government staff like sending government officials to study their Master degree in Korea Development Institute (KDI). KOICA also provides help by providing technical assistances and trainings to health care staffs such as good manufacturing practices training to vaccine manufactures in Myanmar.

KOICA expanded the scale of international cooperation projects for Myanmar in the 2000s, opened its overseas office in Myanmar in 2003, and further expanded aid by providing emergency assistance after cyclone Nargis in 2008. KOICA has focused its assistance on the agriculture, forestry, and fisheries sector with additional attention to the education sector. In the educational sector, strengthening capacity for vocational training is required to prepare for the diversification of the industrial structure in the long run. KOICA has established a training center for post-harvest technology for horticultural crops to increase agriculture productivity, nurture agricultural infrastructure, and develop human resources in the agriculture sector. KOICA has also implemented special projects to increase the capacity for preventing infectious disease of livestock such as foot-and-mouth disease. The three stages of continuous re-forestation projects from 1998 through 2010 have contributed to job creation improved living conditions of local residents. KOICA has established vocational training centers within the Industrial Complex and Automobile Maintenance Technician Training Center.

### 4.3 Myanmar-Japan Centre (MJC)

MJC is located at no. 29, Minyekyawswar road, 12$^{th}$ Floor, RUMFCCI building. It provides training to would be and existing Myanmar entrepreneurs as part of human resources development. It offers courses of business management related subjects including human resources management, project management, strategic management and knowledge management, business planning and entrepreneurship as well as presentation and communication skills. Lecturers are provided by both Japanese and Myanmar lecturers.  A training course normally last 30 hours totally and certificated of completion is awarded to the participants.

SME Development Centre (SDC)

SMEs Development Center (SDC) was established in 4th April 2012 under the Ministry of Industry. Up to now, 15 SME development department branches are opened in 14 states/regions and Naypyitaw. Also 35 SMEs development branches are established throughout the country. SME development trainings were given in these branches collaboration with GIZ and up to 21.11. 2014, 326 staff were attended in these trainings. SMEs development branches provide suggestions and guidance to 2,801 SMEs owners from April 2012 to January 2015. SDC is mainly responsible for SME policy formulation by coordinating with related organizations, agencies, and departments including private, public and international organizations. It provides technical and management training to local SMEs, help SMEs financing by assessing loan proposals and recommending to have lower rate of interest 8.5% per annum from Small and Medium Industrial Development Bank (SMIDB). Up to 2014, 20 billion Myanmar Kyat of loan can be made to 120 SME owners throughout the country. Information sharing services through website and portal, market and business linkage, capacity building by arranging seminar, workshop and business talks and other services to develop national SMEs in Myanmar. With the support of Friedrich Naumann Foundation (FNF), web portal named www.smedevelopmentcenter.gov.mm are created starting on 30 April 2013. It also provides information on SME festivals and expositions held in ASEAN member countries and encourages local SMEs to participate. The centre also provides various kinds of support for SMEs development such as taking the responsibility for database management and data gathering on the dynamic of SMEs sector.

### 4.4 Myanmar-India Entrepreneurship Development Centre (MIEDC)

Moreover, the Myanmar-India Entrepreneurship Development Centre (MIEDC) has been established since 2008 at the Yangon Institute of Economics in collaboration with the Entrepreneurship Development Institute (EDI) of India under the Initiative for ASEAN Integration (IAI) program. The MIEDC offers several short courses to the public relating to entrepreneurship, including Entrepreneurship Development Course and New Enterprise Creation Course, among others.

### 4.5 The Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry (RUMFCCI)

The Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry (RUMFCCI) is the largest not-for-profit business federation, representing 10,854 Burmese Companies, 1,656 Enterprises, 770 Foreign Companies, 185 Co-operatives and 2,898 Individuals. RUMFCCI has a brief history of over 90 years. It was founded in 1919 as Burmese Chamber of Commerce (BCC) and upgraded as a federation in 1999 to be in line with the adoption of the market-oriented economic policy of the Government. It also provides training, workshops and seminars to entrepreneurs, its members and enterprises. The RUMFCCI also issues certificates of origin, and conducts business matching and trade and investment promotion programs. RUMFCCI also gives advice to government to review SME laws and SME-related policies. It provides specific information such as related legal requirements and procedures, relevant standards and specifications, international best practices, product features, prices, buyers, and distributors for enterprises. In addition, the RUMFCCI organizes and participates in local and foreign trade fairs and exhibits, disseminates trade and market information, and provides supervision and coordination for rice marketing for domestic and international markets. The training institute of RUMFCCI provides courses on export/import procedures for SMEs. It courses mainly include human resources management, office management, financial management, e-commerce and computer training and business English. In addition, RUMFCCI training institute offers Master of Business Administration (Global MBA) program cooperation with University of Thai Chamber of Commerce (UTCC).

### 4.6 Trade Training Institute (TTI)

The Ministry of Commerce provides technical training on exporting and importing field, and training course on Entrepreneurs and SMEs Management. TTC is a non-profit training and research institution built on the concept of a public-private partnership. It was established by the Ministry of Commerce with the purposes of capacity building and trade promotion. It has started the first batch of International Trade Basic course in April 2012. At the same year of October, it launched International Trade Advance Course. Up to December 2015, $7^{th}$ batch of basic course and $3^{rd}$ batch of advance course have been completed and about 620 participants have been awarded certificates. TTI is trying to upgrade or open international trade Diploma courses with the collaboration of foreign Universities. In its courses, the curriculum includes international trade related subjects such as international trade theories and policies, logistics management, marketing and business law. In addition, it involves international trade practices and processes such as business negotiation, export and import procedures, trade settlement, business formalization and border trade arrangement. TTC is now about to open the first batch of International Trade Diploma course which will last 6 month to complete.

### 4.7 Public Sector Organizations

The Ministry of Science and Technology (MOST) is mainly responsible for Technical and Vocational Education in the public sector. It has established six Centers of Excellence (COE) and 35 Government Technical Colleges (GTC). In addition, the Ministry of Industry operates six Industrial Training Centers around the country. The Ministry of Labor also established training schools with the aim of promoting vocational training and skills development.

## 5. Case Studies on Myanmar Private Manufacturing Firms

In order to examine the real situation of private manufacturing firms in Myanmar, five firms which have already connected with international supply chain are selected and interviewed with the owners/CEOs of these firms to get understanding on the condition of firm and its business environment. The specific firms included in this study are Soe Electric and Machinery, J Plus Garment, Hall Mark Manufacturing Co Ltd, Golden Myint Manufacturing and Royal Modern Furniture.

### 5.1 Soe Electric and Machinery (SEM)

Soe Electric and Machinery Co Ltd is located in plot 472, South Dagan Industry Zone (1), South Dagon Township Yangon. It was established in 30th August 1993 in Yangon. Its main product is power transformer for more than 20 years and having well experience in designed, manufactured, sold, installed, and maintained transformers, switchgears and other electrical products. The number of employee currently is 470 in which line staff is 420 and remaining is office staff. The owner and chairman of the business is U Soe Tint. Total plant area is 40,000 square meter while factory floor area is 15,000 square meter. It has capacity to produce 250,000 KVA or 19,600 pieces of transformer per year.
The main products are transformer (80%), panel, and switch. All are produced for the domestic market. It is a 100% local capital firm, but in July signed the agreement with Hitachi Industrial Equipment Systems (HIES) for establishing a joint venture. They said they cannot confidently predict the date of new firm establishment, because there were cases in which JVs did not get permission from MIC under Ministry of Commerce previously. But according to their understanding, the JV is going to start in October 2015 (In fact, the JV started their business on October 1st after obtaining an official permission). Afterwards they may consider the possibility of exporting their products.

SEM occupies 70% of market shares in the related products. It holds a large share of the Myanmar market for distribution transformers in particular. The needs for a product increases in Mandalay and Naypyidaw areas. So, SEM has established the showrooms in these areas, but there is no factory. State owned enterprises (SOEs) are main customers. Buying practice of SOES is bidding system which is announced to all the businesses to bid for government projects. Competitive firms are eight in this country. All are Myanmar local companies. Three companies, that is, SEM, AGE, and YTE (Yangon transformer electric) are main players and competing for a market share one another.

Many raw materials and parts are imported. For example, iron is from three foreign firms, Nippon Steel Sumikin, JFE, POSCO, mainly from two Japanese companies. The specifications of products from three companies do not differ. With regards to important materials and parts such as oil poured into transformers, pushing, indicator, the government directs them to use the ones made in Italy or Germany for the case of bids. They do not know well the reason why they should not be a Japanese material and parts. As to big power transformers, they received instructions to use basic core parts of Siemens. With considering smooth production and delivery, they maintain three month stock of parts.

Currently there is not the substantive competition with imported goods, but they expect in the near future they have to cope with it. In addition to two major domestic competitors, a German firm may become a rival soon. As well as Hitachi, they had received requests from Chinese and Korean companies for technical cooperation and/or joint venture, but the president did not consider they are feasible enough. He decided that he could go ahead because this time Hitachi provided the offer. He evaluates technology of Hitachi very well. The equity ratio will be 30% from Hitachi with SEM keeping 70 % of the total share. There is not the resident foreign adviser at all in the meantime, but previously they accepted the experts from Hitachi based on the technology cooperation relationship between the two since 2012. Before the relation with Hitachi, they had technical cooperation with Takaoka Electric Manufacturing (currently Takaoka Toko). They accepted three experts from Takaoka and received technological assistance. Originally these experts were dispatched with supports from JETRO. In fact, the experts from Takaoka introduced them to Hitachi for further cooperation.

On the other hand, they have dispatched their employees to Hitachi. Totally seven engineers went to Japan for 10 days. That was very great opportunity of human resource development. In the meantime, there was no training center in the firm. A consultant who retired from Ministry of Electricity is now in charge of off-the-job training. He takes time for training upon necessity for 30 minutes or one to two hours. Experienced employees have been prioritized for training opportunities in order to make them more effective under time and resource constraints. Although they hesitate to mention specific cases, generally they are very cautious for head hunting by other firms.

The consultant had worked in another private firm for three years after the retirement from the ministry. Then he moved to SEM and nine years has passed already. He teaches technology related to electricity in cooperation with another consultant. He has the qualification called electric engineer that is considered to be equivalent to that in the United States.

The government aims to realize electrification all over the country by 2022. Hydraulic power generation continues to be the basis, while natural gas will be more utilized. At any rate SEM stimulates business development along with this aim.

### 5.2 J Plus Myanmar

J Plus Myanmar is a South Korean company and started operation one and half year ago. This factory in Myanmar is the one and only production base currently. The president has run a trading business in this country and so company conducted business for some time. Because of that, he chooses Myanmar for the location of his factory. Total number of employment is 430 operators in the factory. 90-95% of the production is for jackets and coats for Japanese market.

The general manager is Chinese and originally worked for a factory in China. After having worked for GS for some months, he was hired by J Plus. Three years passed after coming to Myanmar, but the management of garment factory is difficult. Production for Japan is in particular hard to handle and a tiring task. There are two Korean engineers and two other Chinese expatriates. Once in two months, a Japanese from a customer firm come over so that he can confirm the operation process and performance.

He is now in charge of production because of strategy change of the firm while previously his job was sales for international trade and management of subcontractors. Direct business partners in Japan are Hirota, Toshima, Aeon and others. Their current concern is that the Japanese market is not in a good condition compared with the situation in the last year. It seems to be a considerable effect of the weak Japanese Yen.

When it comes to the difficulty in Myanmar, it is not easy to deal with the gap in terms of ways of thinking as well as the language. It is very good that workers are obedient and make serious efforts. But frankly speaking, the level of operation is worse than that of China. With regards to labor productivity, the number of clothes produced per hour, he feels the number of necessary workers in Myanmar is twice as many as that in China. It is not obvious why that is the case, but tropical climate may have an effect. Even so, since wage is higher in China, it seems to be meaningful to produce in Myanmar. Monthly basic salary is just a little over 130 dollars. The problem is the minimum wage of 3,600 Kyat per day was decided to be introduced. Due to generous conditions for workers when calculating monthly wage received, actual amount is expected to double. Chinese, Korean and

Taiwanese garment firms will have serious troubles. Because he heard that it will be enforced next month, he feels very worried whether they can continue production in the country. Because it is a flat wage system all over the country, they don't have the option to move to the country side.

Working hours are from 8:00 in the morning till 17:30 in the evening. The lunch break is between 12:00 and 12:45. Most workers prefer to work for long hours because they do not mind working overtime rather they feel it is much more attractive to obtain extra money. Although labor turnover rate is high, it is easy to recruit new workers instead immediately. When the firm employs new persons, they have to take a test. Because the management can diagnose new workers' past experiences, they will be assigned for the appropriate processes, relatively easier or more difficult ones. Workers' skills are evaluated and classified into three level of A,B, C in which A is the highest. Inexperienced workers need to start from level C. If they keep on making efforts appropriately, they are expected to become level A after two years.

The factory is not owned by J Plus but under a rental contract. The Korean parent company involves in management of the orders only. The management of the workers is taken charge by the factory. As for the machines, mainly the sewing machines, more than half of them are properties of J Plus. Because machines and equipment for jacket production are relatively expensive and not versatile that is different from those for casual clothes, how to recover investments is a serious matter. Moreover, the rental price for the factory is sure to rise in the near future.

This factory is only for Cut, Make & Pack (CMP). Fabrics are imported from Taiwan, China (Shanghai area), and Japan. Local procurement is limited to sewing thread, button, and box. All the others are provided by their customers overseas.

There are a lot of garment factories in Myanmar, but few companies are specialized in a jacket and a coat and consequently competitors are much less. Those focusing on jackets and coats related production mostly take charge of subdivided functions, for instance, only to batting. When there is no sufficient order, other factories may turn on other work without serious difficulty, but J Plus is not such flexible because their machines and equipment are specialized in a jacket and a coat only. More new order will lead to productivity improvement while it is quite hard without orders. They are behind the production schedule this month because a new product enters into the production lines.

How many parts are necessary to a jacket? At the stage of sewing, it is around 70-80 in making one piece. A coat requires more than 100 parts. In terms of processes, there are about 90 for a jacket including sewing buttons and making button holes. It is difficult to handle processes with curved surfaces like armholes and collars. When they will increase the capacity of production, it will increase the product lines consisting of the same processes. They will not make adjustments such as subdividing a process more. Hence the contents of every production line are the same.

When it comes to retail prices, the jackets is from around 9,000 to 10,000 yen. As for the processing fees, they are paid for a jacket seven to eight dollars. As for the coat, 12 to 13 dollars are the highest. It is very helpful for them because import tariff for garments is zero in Japan.

### 5.3 Hallmark Manufacturing Co Ltd

The Hallmark Manufacturing Co., Ltd. is a leading garment manufacturing company based in Myanmar. The apparel produced at their factory includes shirts, jackets, pants, vests and blousons. The factory of the company that is also located in Myanmar, spread across 40,950 square feet, employs around 952 workers. The company's main export market is Japan and next to Japan Europe. It is located in No. 52, Mya Taung Wun Gyi U Hmo Street, Hlaingtharyar Industrial zone (1), Yangon, Myanmar.

Production capacity is 90,000 pieces per month which is about 25% increase from the last three years. Factory is wholly owned by Myanmar citizen. The owner is in her mid-40s and B.S.C degree holder. The main products of the factory are Jackets, trousers and working suit of which working suit is the main product which represents 40% of total output. The major customer is medium and large wholesalers and retailers from Japan. The relationship with customers is well established, direct and close relation. Productions are run by C.M.P basis therefore customers dispatch all materials and specification. Only minimal raw materials are locally sourced. The factory is just making garment according to prescribe criteria. The mean of transport is normally made by sea trade and only a few percent is done by air (only for urgent order). The company is a member of RUMFCCI and Myanmar Garment Manufacturers Association (MGMA). The owner is also a member of Myanmar Women Entrepreneurship Association (MWEA).

The factory is also a participant of Smart Myanmar Garment Factories Improvement Program (2015) which was organized by sequa gGmbH Germany and MGMA. Therefore, its competitiveness is said to be better than most domestic competitors and possibly to compete at the regional level. But the problem is the productivity of labor and although the wage is said to be low (at present below 3,600 kyat (approximately 3 USD) per day and it has to be increased to meet minimum flat pay 3,600 Kyat) which is compensated by low productivity of labor and consequently lead to increase labor cost in the per unit of product to be able to compete at the regional level.

Concerning business external problems, there is no problem for the competition with domestic competitors but the competition with regional level particularly with Bangladesh and Vietnam is intense.

Other external problems are electricity shortage and breakout, high cost for infrastructure particularly for road and bridge pass and high labor costs. For the impact of AEC, the factory believes that AEC may bring positive impact on the domestic manufacturing firms by reducing trade barrier and sanction as well as unifying wage rate throughout the region.

For internal problems, the factory is facing unable to allocate time for product development due to time is pressing to meet urgent order requirement, insufficient quality control system. Unlike other garment companies owned by foreigners, labor relation is not a serious problem for the factory. However, due to intense competition for the orders from foreign countries, it needs to reduce the price for its outputs. At the same time, overhead for land, tax, transportation, wages and overhead costs are increased so that the profit of factory is declined and business is just marginal in the last three years. Because of this, there is no investment plan for the future year as well as no new investments have been made in the past few years. Technical assistance, business development services are some extent provided by UMFCCI in collaboration with foreign organization but still insufficient. Internal R&D is lacking but in some cases, buyers provide technical training to the supervisors and workers before making their orders.

From the human resource development perspective, all workers in the factory are skilled workers. There are 10 mechanics in the factory and educational backgrounds of workers are satisfactory. All workers are appointed and full time regular employees and no temporary workers are utilized in the production. For urgent orders, currently employees are working overtime. They are normally willing to work for overtime working because they can enjoy 2 times of normal wage. The factory has 3 foreigners who are working as mechanics in the factory. Their nationality is Indonesia. Labor turnover rate is about 30% per year which is normally average in the garment industry because skilled workers tend to move from one factory to another in order to earn more wages in the garment sector. The average year of workers is about 8 year. Both internal and external recruitment is used to recruit workers when vacancy is existed.

For skill development training, only operatives are provided training because it is necessary to produce new design. Therefore, all operative workers are undergoing training before they are recruited as full time basis to handle their machine efficiently. When every new order comes, they need to be trained in order to meet specification of the buyers. The new training program for operative workers in the future is, therefore, planned.

### 5.4 Golden Myint Manufacturing Co Ltd

Golden Myint Manufacturing Co Ltd has been one of the top 100 SMEs in Myanmar in 2012. Its main products are shoes and sandals. It is located in No. 215-218, Sittway Street, South Dagon Industrial zone (1), Yangon. The factory was established in 2002. The owner of the factory is in his mid-50s and also the chairman of Myanmar Footwear Manufacturing Association and the Secretary General of Myanmar Industries Association. Total number of employees working in the factory is 600 which is about 50% decline relative to previous three years. The factory is run by OEM basis in which it supplies products to the buyers according to their specifications who resell the product with their own brands. The factory is also a maker of several branded international footwear companies. Total turnover of the factory last fiscal year is USD 1.5 million which is also declined about 50% relative to the last three year. The profit of factory last year is reported as USD 15,000 which is also decline about 50% relative to the last three year.

The main products of factory are footwear of various kinds. The factory imports raw materials from India, Pakistan and Thailand, processes them in Myanmar and exports to Japan, Australia, Newzelands, Spain, Netherlands and Malaysia, Thailand and Vietnam in Southeast Asia. The main production process is making, cutting, designing, sewing, finishing and packaging. The major customer countries are Japan and Australia. The products are exported to these markets by ship and sometime the order is very urgent by flight. Export by flight is very costly so it is final option used only to meet dead line of the international orders. ICT is used only for communication purpose with buyers and suppliers. Company uses websites to advertise and sell its products. Status of relationship with customers is direct and close. For some major customers, the relationship lasts about 10 years. There is no indirect export for the factory's products. The major suppliers of the factory are India, Pakistan, China and Thailand. The factory buys raw material through its Singapore based company. The relationship with suppliers is long-term and reliable. There is no problem between factory's supply chains except some delays in export/import procedures.

The business environment of the company is rather difficult in present days because of the competition from international competitors who can make the products with relatively low price because of advantage in their labor productivity and logistics costs. Competition with local rivals is not severe for the company. The major problem for the company is rising costs of production including labor cost, logistics costs including power, road and bridge crossing fees and other overhead items. The most serious factors of factory's manufacturing capacity are power failure (if power breakdown, the use of generator may lead to increase 6 times than normal cost of production with electricity) and higher land price for extension.

The owner thinks his firm overall competitiveness is on average relative to domestic competitors but he says definitely that his firm cannot compete with the competitors in the region mainly because of inadequate government supports to domestic manufacturing firms and infrastructure issues. The firm's external problems are price competition with foreign competitors, high cost of transportation, taxes and other fees (He gave an example that the cost of shipment for a 20 feet container from Yangon port to Singapore is about 250 USD while the cost of transportation of this container from Yangon factory to Yangon port is also 250 USD in order to highlight the cost of transportation and other fees in the country). Poor and inadequate infrastructure for power supply, land and roads are also major issues for businesses that lead to decline overall competitiveness. From the bright side, he said no difficulties concern with government's rules including license and custom procedures.

For AEC, the owner thinks AEC may impact negatively on the domestic manufacturing firms because they are not yet ready to face foreign competitions. In addition, local business supporting facilities are not well fulfilled that hinder competitiveness of domestic firms relative to well facilitated foreign competitors.

For the firm's internal problem, the firm has weaknesses in developing new products and processes because of lack of technological advancement. For every new product design, the firm relies on buyers who award order and teach the firm's employees how to produce. In this way, the firm is learning new product designs and new process via its customers. In this way, the firm gradually knows how to make things better. Concern with machineries and equipments, the firm cannot afford to buy high quality machines that made in Japan and Europe because of expensiveness. Instead it mainly uses Chinese made ones because they are cheaper. For the cost management, the firm cannot control on labor cost because of newly enacted minimum wages. In addition, the firm is facing high cost of shipment relative to its foreign competitors because all of its products that go to Japan, Australia and Newzealand need to be transshipped via Singapore. For skill development of workers, the firm cannot pay for specialized skill upgrade training courses. Most of the trainings are taken place by means of on the job (apprentice) training. Finally, the firm is facing high rate of interest to finance its foreign orders. It cannot pay more than 5 percent per annum whereas the present rate of interest from bank is more than 13 percent per annum.

Currently, the firm does not have new investment plan. The firm also did not make new investment projects during last three year because the owner wants to see political and investment climate condition in the new government regime. The firm also does not have new innovative plan because its nature of business is making according to the customer specification. Customers specify the criteria of product design and most of the time train employees how to produce to ensure to meet specifications. Accordingly the firm does not have specific R&D staff. However, it employs six engineers to oversee the production process. So far, most of the technical assistance and business development services have been received from the foreign customers. These are beneficial for the customers as well as the firm itself by improving quality of products, meeting specification right and reducing wastes.

For human resources dimension, the factory has 30 office staff, 550 production line staff and 20 security and general staff including drivers. Skilled workers represent 70% of total labor force of the factory. There are 15 management and senior professional levels and 15 technicians. Education backgrounds of employees are ranged from primary level to college graduates and are generally sufficient to meet the factory's requirements. For the peak season, the factory hires temporary workers. The number may vary according to urgency of foreign orders from 100 to 150 seasonal employees per year. Factory uses foreign experts to provide training in product and process design for new products. Most of them are sent by the customer companies. Currently, there are 6 foreign technicians in the factory from Japan, Italy and Thailand. Turnover rate of the workforce is about 30 % per year and average year of service of employee is between one and two year. Generally speaking, the knowledge and skill level of employees is adequate to follow the training and production requirement of the factory.

Training is provided only to the production line workers. Their income is positively linked with their skill level so they are willing to attend training. Therefore, ration of training participation is greater 80%. Production workers, supervisors and technicians are involved in the training. The factory cannot provide training to management posts and engineers. The most beneficial trainings are design and production process training. The least beneficial training is maintenance training for machineries. In addition to normal salary and wages, employees are provided bonus, transport, food, accommodation, health and educational support to their family members. In the future, more training will be provided to technicians and production line employees.

### 5.5 Royal Modern Furniture

Royal Modern Furniture was established as Myanmar Furniture Co., Ltd in 1997 since then it has progressively grown to become one of the leading furniture distributors in Myanmar. The company’s mission is "building high quality, innovative products at competitive prices in order to satisfy nation-wide customers' requirement". Of five directors of Royal Furniture, three are MBA degree holders.

The company has started off by importing raw materials from Malaysia to assemble finished goods in Myanmar in 2002. Firstly, its main business is distributing chipboard furniture nation-wide.

Later it expanded by creating decorated medium density fibre board (MDF) to smarten up the existing furniture by utilizing state-of-the-art technology. Sofa factory was launched in 2004. The company has, up to now, four grand showrooms displaying wide-range of international quality furniture. Main products of the company are chipboard furniture, decorated furniture, stainless steel furniture, bed room set & sofas. Two showrooms are located in Yangon at Yuzana Plaza and Taw Win Centre while other two are located in Mandalay at Mingalar Furniture Centre and Diamond Plaza.

The CEO of the company is in his early 40s, Myanmar citizen. He is the holder of B.E (Mechanical) and MBA degree. The CEO is also the member of RUMFCCI, Myanmar Timber Association, Small and Medium Enterprises Association and Myanmar Business Executives Association. The head office of the company is located at No.5, South Horse Race Course Road, Tamwe Township, Yangon. The ownership structure of the company is wholly owned private company. It has 182 employees totally and the number is increasing 20% relative to the last three years. The output of the company is increasing year by year and the profit margin is quite satisfactory for the owner. Both output and profit increase 20 to 30 percent compared with last three years.

Main products of the company are chipboard furniture and Sofa. Combined share of these two represent 60 percent of company total sales volume. Materials are imported from Malaysia, Thailand and China. Major suppliers are normally the large companies in their countries. These are imported through normal trade via sea. Materials and parts are designed, assembled and finished in Myanmar factory and sell in the major cities of Myanmar mainly in Yangon, Mandalay and Naypyitaw. The main production process involves designing, cutting, fitting, painting and finishing. The relationship between suppliers is based on long-term, close and direct relationship so that there is no significant problem in supply chain. Major customers are local businesses, NGOs, INGOs and government offices of which businesses are main customers. The relationship with major customer is direct and close. The customers normally look the products firstly brand and secondly design and after that cost. Therefore, price competitiveness is a major factor for the business.

The company thinks itself as better than most domestic competitors but not possible to compete in ASEAN region. Since the company is totally devoted itself in the domestic market, its major competitors are domestic ones. But in term of market segment, the company is well positioned in the office furniture segment while its competitors are strong in home furniture segment. Therefore, there is no direct competition taken place among them. The company enjoys about 70% of market share in the office furniture market segment.

The business's external problems include high duties, taxes and other fees, poor infrastructure like power supply and road, high cost of infrastructure and government regulations including import procedures and processes. The business' internal problems include product development and innovation, machinery and equipment, quality management, skill development and financing. But none of these are major problems for the business. The owners think the launching of AEC will not impact seriously on its business performance since the company can develop strong brand image locally and accordingly it has a strong customer base. Moreover, the company is already strong in innovative design and cost competitiveness therefore it may be difficult for foreign competitors to match. The company is now planning for new investment by extending new factory and opening new showrooms. The company has innovative plans in its product development. New product design needs to be developed regularly and introduce to the market in order to be successful continuously. Therefore, the company employs a strong design team with 6 staff. The company is also hiring workers who have foreign experience in design and production of furniture. As a technical assistance and business development services, company is now emphasizing in human resources development training collaboration with both private and public organizations.

The company has a well dedicated human resource development plan internally. It takes much time to develop skill level of workers step by step and career and pay structure is closely tie with skill development of individual employees. Due to the nature of business, the skills of employees are short supply in the outside. In the similar vein, skilled employees are also hard to find alternative jobs elsewhere. Therefore, employees' turnover rate is low normally between 5 and 10 percent in a year. The average year of service of worker is between 4 and 5 year. Internal promotion and recruitment policy is practiced if a vacancy is arisen anywhere within the company.

The company is very keen to provide employees training. Trainings are taken place both on the job and off the job. The training courses are continuous throughout the year. The major training courses are managerial training, sales and customer relationship management training, teamwork and leadership training and technical skill training. In addition, computer and language skills including English and Chinese language trainings are provided to all staff. Ratio of participation in the training is almost 100 percent because it is the company's policy that all employees have to engage in training unless they have sound reasons. All level of employees starting from the managers to the production workers are participating in one sort or another course of training. The CEO thinks the most beneficial trainings are sales and customer relationship trainings because he believes the company's strength in customer relationship is the results of these training. The least beneficial training is language training because he thinks it is not directly concerned with the business advantage because the target market of the company is domestic. In addition to the internal training, private training providers are invited to offer specialized training particularly in executive development program. All levels of employees particularly manager posts are encouraged to attend workshops and seminars that held in RUMFCCI and other places. The company has a well developed compensation structure for its staff which includes production bonus, executive bonus, overtime wages, training opportunities, free lunch, uniform, ferry, loan assistance, family welfare, free rice support to production workers, accommodation and children school expenses.

The company's main concern is market size because it solely focuses on business sector of urban cities the growth of market depends on the development of business sector and size of economy.

## 6. Conclusion

One tentative conclusion can be drawn from the above case stuides that the firms that maufacturing on OEM or CMP basis is not very profitable as their counterparts that target to the domestic market by using imported raw materials. More specifically, firms that operates OEM or CMP basis as in the cases of J Plus, Hallmark Myanmar and Golden Myint are not very favorable as Soe Electric and Machniery and Royal Modern Funiture. The later firms mainly or solely target to the domestic market. One possible explanation for this is the foreign markets are more intense competition than domestic market so that the firms speacializing foreign markets cannot compete in both product qualtiy and cost. Another possible reason is that Myanmar is not a cost effective country as a base of manufacturing as many expect because its lower labor cost is largely outweighted by lower productivity of labor and higher costs of overhead and logistics. Both should be awared of by the firms that want to invest in Myanmar. They need to consier seriously about how to overcome the problems of lower labor productivity and high cost of overhead and logistics which are mainly due to poor infrastrutures and unclear policies and procedures of the country as well as existence of corruption.

The manufacturing firms that are going to invest in Myanmar may fall one of the following three categories. These are (1) the firms that use local resources inputs, process in Myanmar and export to foreign market (2) the firms that use foreign resource inputs process in Myanmar and export back to foreign market (i.e. CMP businesses) and (3) the firms that use foreign resources inputs, process in Myanmar and sell in Myanmar. At present condition the firms in type 1 are almost lacking, the firms in type 2 are facing many difficulties and the firms fall into type 3 are favarable as indicated in the case studies of Myanmar manufacturing firms.

From the nation's perspective, the country needs to encourage inevitably to the firms in type (1) to effectively utiize country's aboundant natural resources and to absorb surplus labor force. The country, up to present situation, still heavily relies upon resource economy since its main export and investment sectors are natural based minerals, timbers, jade and jewellery and natural gas. The country, for the sake of long run compettiveness in the region, needs to tranform itselfs from resource based economy to manufacturing based economy and then knowledge based economy in order to change its structural composition. The new government realizes very well about this fact and it is highly possible that resource-based and labor-intensive manufacturing sector will be prime important in the country's industiralization policy as a first step of industrialization effort of the country which will be followed by more sophisticated knowledge and technology-driven manfacturing sector at the second stage of industrialization.

At present, Investment obstcles in Myanmar facing by the firms are (1) Power shortage (2) poor and costly Logistics infrastructure such as road, rail, ports (2) high cost of land and housing (4) low labor productivity (5) inefficient legal system and high level of corruption (6) taking control market and producive resources by power-related elites and protectionism and favoritism to them i.e. family member and cronies of some formal military generals (7) poor transparanecy in government tender offering and processing, custom and tax regime (8) banking and insurance facilities (9) impact of sanctions by U.S.

Opportunties are (1) strategic location on ASEAN and global supply chain (2) aboundant of trainable labor force and (3) availablity of natural resources. In addition to these traditional advantages, the dynamic advantages of the country are (4) improved political image due to results of reform and election (5) liberalization on trade and investment (6) improvement in logistics facilities particularly in mobile phone and banking sector (7) improved international relation with U.S. and western countries (8) improved infrastructure in SEZ and border area and (9) law and rules reform to attract FDI and improving business enviroment including FDI law and SEZ law.

In the present occasion, Myanmar has begun to transform itself to escape from poverty trap and turned to become a rich country. The country is said to be moving on the right track because of its reform momentum starting in U Thein Sein government's regime and that will be accelerated the incoming new government regime. The investment climate will be improved much favorable than at present and it will also be accelerated in the new government regime by improving rule of law, reducing corruption and red tape, building capacity of government staff, improving transparency of government policies and activities, cutting ties between power elite and businessmen, improving international relations that result in removing sanctions and increasing the number of tourists arrival. These reform measures are highly probable to see in the regime of Daw Aung San Su Kyi's government. As the consequences of these, Myanmar has a high potential to become manufacturing base for several industries including garment, apparel, furniture, auto parts, food processing, animal breeding, IT and consumers electronics. Whether or not this expected scenario will be happened actually depends upon, in a large extent, the existence of relatively favorable political and economic climate, rule of law, strong institutions and markets mechanisms, simple and efficient government regulation and protecting investors' right. In turn, the capacity and political maneuvers of the new government becomes the major decisive factor to exploit the opportunities to host foreign investments in these sectors and transforms Myanmar as a new base of manufacturing country in Southeast Asia.

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[xxvi] As results, NLD won majority of seats in both elections to form new government in March 2016.

[xxvii] Before 2011, Myanmar had multiple exchange rates system. One is legal rate which is unduly overvalued Myanmar Kyat against US dollar (1 USD = 6 MMK) while market exchange rate or illegal rate is around (1 USD = 800 MMK). Other exchange rates include so called Custom rate (1 USD = 1000 MMK) which was used to determine CIF value to collect custom duty on imported goods and FEC (Foreign Exchange Certificate) rate which rate is slightly lower than US dollar market rate was issued by Central Bank to serve as a medium of exchange for foreign traveler to spend for buying local goods and services because local citizens were not allowed to handle and use foreign money. 1 unit of FEC is equivalent to 1 US dollar. FEC was recalled back during 2011 by the Central Bank after local businesses were issue licenses to operate with foreign money.

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ASEAN integration) are undertaken and (4) to be a region fully integrated into the global economy two measures including (coherent approach towards external economic relations and enhanced participation in global supply chain network) are initiated.

[xli] According to the National Constitution (2008), military representatives who are directly appointed by the chief commander of the army take 25% seats automatically in the all parliaments which means only 75% seats available for the public to elect.

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