



EFFECTS OF AGRICULTURAL POLICIES ON RICE INDUSTRY
IN MYANMAR

BY

MISS NANG NU NU YEE

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS (ASIA PACIFIC STUDIES)
COLLEGE OF INTERDISCIPLINARY STUDIES
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2017
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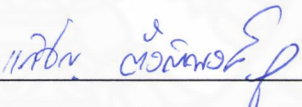
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EFFECTS OF AGRICULTURAL POLICIES ON RICE INDUSTRY IN MYANMAR

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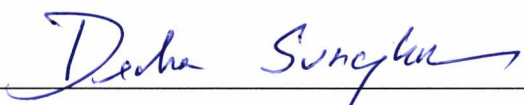
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ABSTRACT

Myanmar is an agriculture-based country; thus rice industry is the one of most important sectors for her economic development. During the early 20th century Myanmar was worldly recognized as the “Rice Bowl of Asia” and was the number one exporter in the world. However, the amount of rice export declined significantly time by time and no longer dominated the world’s rice export market. Therefore, the significance of this study is to examine how Myanmar’s rice policies shift its rice sector from top rice-exporting country to self-sufficient production of rice. This paper focuses on macro and micro economic policies. At macro level, the study analyzes policies on credit systems, exchange rate policy whereas at micro level, the study looks into policies on production, trade and price policies. This study discovered that since the end of British colonization in 1940s, rice policies in Myanmar had been constantly intervened by the government. This resulted to mismanagement and ineffective policies for rice industry in every successive government regime. It is obvious that the socialist period was the most damaging part throughout Myanmar’s history of rice industry. These policies focused more on rice production rather than to develop strategies to improve the export of rice. The reason is that the government considered rice as one of the factors contributing to political stability in country. This resulted to the maintenance of low price of rice which has been proven not effective for the farmers as well as production thus led to the decline in rice export at the global market.

Keywords: agriculture, rice policies, production, trade, export

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LIST OF ABBREVIATIONS

Symbols/Abbreviations	Terms
CESD	Center for Economic and Social Development
CSOs	Central Statistical Organizations
FAO	Food and Agricultural Organization
GDP	Gross Domestic Product
HYV	High Yield Varieties
IRRI	International Rice Research Institute
MADB	Myanmar Agricultural Development Bank
MAPT	Myanmar Agricultural Produce Trading
MOAI	Ministry of Agriculture and Irrigation
ODA	Official Development Assistant
SAMB	State Agricultural Market Board
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council
UBAMB	Burma Agriculture and Marketing Board
USDA	United States Department of Agriculture

CHAPTER 1

INTRODUCTION

1.1 Introduction

Myanmar has been and still is a prominent agricultural producing country. The most prominent crop out of this industry is rice. From its early history to modern day, rice has been planted and becomes the backbone of Myanmar's economy for many generations (Binns, 1947). Later in the 19th Century, due to the intervention of British colonialists and educated Burmese, the industry take off and enters the world market. Myanmar's rice production made a great stride in the world's market as its demand continue to increase beyond what it can supplied. It occupied the world's rice market in the 30s with its annual export reaching about 3 million tons per annum. It comes to a point that, Myanmar is envisioned to be the "Rice Bowl of Asia" and was called the Number One Rice Exporter. Russell (1947) as cited in (Naing, 2015) stated, the rice export production increased from 64% to 71% during 1880 to 1940 (Russel, 1947). However, Myanmar seems unable to continue this momentum as the country falls into a brief chaos post military coup, effectively affecting the industry. Gradually, due to some reasons, the industry gradually in decline and no longer dominating the worlds market. According to the USDA Statistics, the volume of the rice export decreased by 400 tons; from 1591 tons in 1961 to 1100 tons in 2015 (USDA, 2015). Today, Myanmar rice industry overshadowed by her neighboring countries rice exports. Does Myanmar's rice quality drop, or it becomes too pricey for consumers, or is it because of mismanagement by the state? These are the kind of questions that this study wants to look at, especially those reasons that failed the industry.

In Myanmar, policies play as important roles that affects the economy. Therefore, the agricultural policy is another important factor that this study wants to focus on. As the country is in a democratic transition, the civil government kick start plenty of economic reform and has pinpointed agricultural industry as one of them.

Therefore, the motivation for this research is to study how the policy had changed during and after military government and how it affects Myanmar rice productions and export which take the crucial role in Myanmar economy development.

1.2 Research Objective

The main purpose of this research is to look at the agricultural policies that turned Myanmar's rice sector from rice exporting country to self sufficiency rice production and consumption.

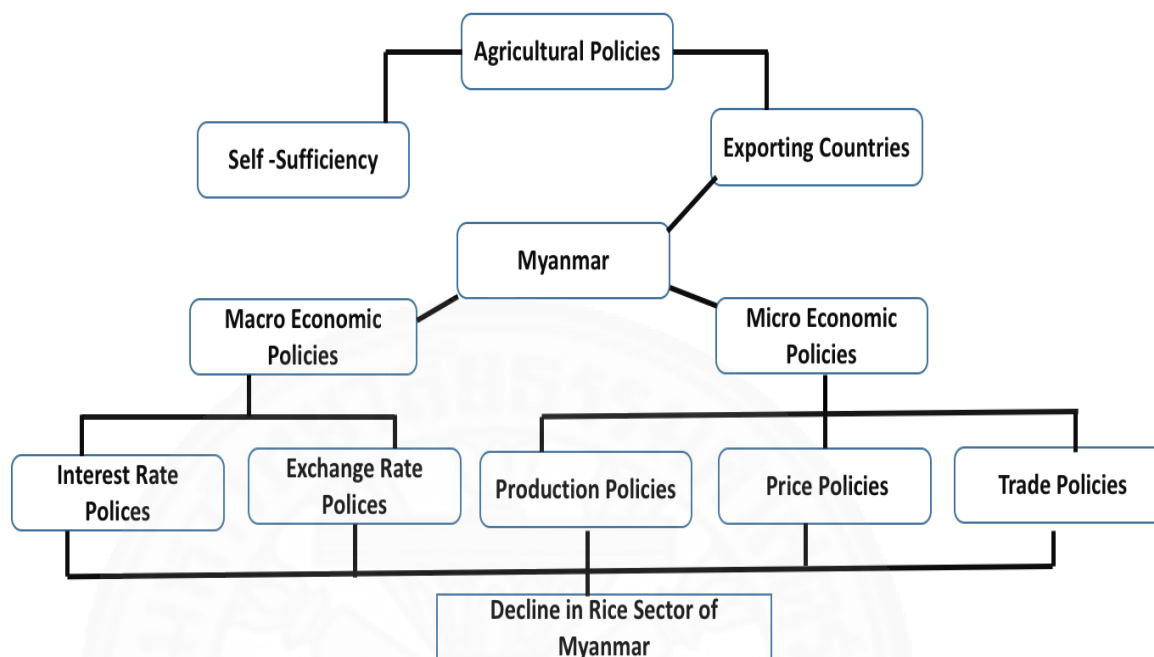
1.3 Scope of Research and Limitation

This paper would focus on the rice policy of Myanmar starting from the period colonial period from 1885 up to 2011.

1.4 Research Question

What are the government policies that make Myanmar rice sector to decline?

1.5 Methodology



4

The main objective of this section is to introduce the methodology used in this paper in order to analyze which policies had led to the decline of Myanmar rice industry.

In this study, qualitative method has been applied to investigate the Myanmar's policies related to rice commodity. As Myanmar is an exporting country, the study will look at both macro and micro economic policies which can have an impact on the rice industry. Firstly, under macro economic this paper will study about the interest rate policies and exchange rate policies. In relation to interest rate policies, it will also examine about the credit system and how the interest rates affects this sector. For the exchange rate policies, this paper will look at the value of Myanmar currency and whether is it over value or under value. For instance, if it under value it will favor the export because it makes the price of Myanmar currency lower. Furthermore, under microeconomic policies, it will look at three categories such as production policies, price policies and trade policies. As for the production policies, it will look at the policies related to production, such as input subsidies including fertilizers, farm machinery, pesticides and seed. Then, it will study how the

production policies affects farm outputs and exports (yield). Furthermore, under micro economic policies this paper will look at the price policies and how the prices of input and output had been managed in the domestic and international level and it's affect on Myanmar's rice in global market. Finally, the study will include Myanmar's trade system in export and import. In addition to that, it will look at how the import tariffs, export taxes and restriction of trade had influence on the amount of rice export and has change the rice industry of Myanmar. Thus, such kind of policies will be studied from the period since colonial days in the 1880s to until 2011 in order to fulfill the objective of this study. In the end, this research will reach to a conclusion on how the evolution of Myanmar's Agricultural policies disrupt its chances for a greater gains in the worlds market.

1.6 Sources of Data

In terms of the data, this study gather data through both primary and secondary sources. For Primary data, textual data were obtained from the Myanmar government agencies, namely, Ministry of Agriculture and Irrigation (MOAI), Ministry of Commerce and the Central Statistical Organization (CSOs). Moreover, to investigate the amount of exports, rice growing areas and numbers of farms, the secondary data were collected from other reliable resources mostly from other international organizations such FAO (Food and Agricultural organization), USDA (United States Department of Agriculture) and IRRI (International Rice Research Institute) which also work on the rice sector of Myanmar. Importantly, these sources made available from 1960s to 2015. In addition to that, to get more information and the performance of rice sector, this study gathered data from different sources such as books which described history of Myanmar economic development focusing on rice, the reports and paper from some organization such as World Bank and Asia Development Bank and local research center such as CESD (Center for Economic and Social Development). The author utilized diligently library materials (articles, journals and academic research work) from the Thammasat University library.

After obtaining all sufficient information, the policies prior and after military regime were compared by looking at the specific indicator such as number of farms, rice growing areas, productivity as well as the number of exports and what had changed across time.



CHAPTER 2

REVIEW OF LITERATURE

This literature review will help to explain different facets of the rice industry. Generally, it focuses on the agricultural policies for developing countries that will help to shape the framework of this study. Furthermore, the following part will discuss what are the right policies or instruments that are appropriate for developing countries and the role of government in agricultural policies as well as the impact of the intervention in this sector.

2.1 Agricultural Policies and Choices of Policies in Developing Countries

In general, developing countries are different from each other, and the strategies that government used also varied under different circumstances. There are four well known factors of agricultural policies for developing countries. Firstly, most of the developing countries tried to promote the improvement of industrialization through the policies of import substitution and by protecting the imports which created a competition within domestic production. Second, the exchange control regime which has been maintained through overvalued exchange rate system and become a mechanism for the import licensing by making it more restrictive compared to other countries that had adopted the import substitution. For the third factor, most of the developing countries attempted to decrease the prices for producers on primary products under government's procurement policies (for instance, through agricultural marketing boards), taxation on exports and export quotas. For the last factor, some governments focused subsidizing the input policies and invest more in irrigation and other inputs in capital sector (Krueger, Schiff, & Valde's, 1988).

Brooks (2012) stated that governments have different objectives under agricultural development sector such as to increase the agricultural productivity, promoting gender equality and enhancing the resources to be more sustainable.

Depending on the different objectives and goals, there are many options for government to decide the most suitable instruments for countries are as the following: (Brooks, 2012)

1. Interventions in markets for outputs and inputs: Price and trade policies; marketing policies; input subsidies (e.g. for seeds, fertilizer and working capital credit).
2. The provision of public goods, such as rural infrastructure
3. Income transfers
4. Changes to institutions (setting up or eliminating marketing boards, and land reforms, financial sector reforms, property rights and legal framework.

Moreover, although developing countries are rich in natural resources, the markets are usually smaller compared to high income countries because the transaction cost is higher in output markets and farmers have less chance to engage in the market. The market failure is more frequent in developing countries than in developed countries due to missing credit and insurance markets. In developing countries, most of the farm households are buyers rather than as sellers and, using agricultural policies such as input subsidies and price support in developing countries are not effective (Zezza et al., 2008).

On the contrary, policies recommended for developing countries include price stabilization and different types of markets. Rather than that, input subsidies have also been used in countries like Africa to promote food production and to relief hunger and poverty. Brooks (2010), argued that although these policies are implemented for either short term or long term objectives in developing countries, the market failures which is more prevalent in developing countries have led these policies to be implemented alternatively in a straightforward way. OECD suggested developed countries should tackle the market failure problem first and address other concerns through targeted policies (OECD, 2002). Moreover, OECD (2003) explained that countries which have adopted or developed systems of social protections have poor agricultural policies and are weak at social protection. The benefits shared to farmers such as input subsidies and price support will reach out to the other unintended recipients such as providers of the inputs or the land-lords outside from

the farming sector and lead to deadweight efficiency losses (such as the consequences of domestic resource allocation effects, and for exporting countries, containing the transfers to oversea consumers via lower world prices.

2.2 Trade, Price and Production Policies in Agriculture Sector

Price and trade policies play important roles in agricultural development. Rather than production effects, the relative change of agricultural prices, particularly on staple food may have substantial consequences for income distribution in low-income countries (Mellor, 1978). Price policies are defined as *“policies designed to influence the level and stability of the prices received by farmers for farm outputs”* (Ellis, 1992). These are the regulations which reduce the paddy selling unit of farmers. Furthermore, they comprised of government forcing procurement at official rate to farmers. The government also control export to create a lower price for consumers in order to secure domestic supply market. The price policy has impact on three main areas such as in improving farm output, stabilizing income and prices and affecting income distribution. However, it is noted that stabilization of price and income do not totally depend on the price policy instrument. Climatic variation is also an important alternative way for the crop yield stabilization and research & technology should also be considered rather than just price policy. Furthermore, Krishna R (1967) argued that price policy should be limited to a few commodities of strategic importance either as staple foods or export earners. As more commodities comes in the price policy, the more complex it becomes and it creates side-effects in the relationships between them and each additional commodity covered. Trade policies instruments include import taxes or subsidies, export taxes and restriction on trade. The export taxes affect agricultural products directly and causing the producer to avoid production for export. In the global setting, low tax with open foreign trade structure and less restriction on imports and exports is recommended for sustainable development (FAO, policy options and instruments). Agricultural productivity is affected by various factors. The agricultural productivity is increased mostly due to technological improvements

unless there are limited labor and scarcity in production equipment's and resources. Moreover, the favorable weather is also one of the most important factors for the production. On the other hand, there are many other issues which affects production policies such as land ownership, regulations and law, foreign trade and price policies. In addition to that, research and education work are recommended for the progress of this sector (Steward, & Steward, 1947). The agriculture production policies for sustainable development are more related to human resources who are working in the farm field (Clark, 1947). Nonetheless, many issues are beyond the policy makers' jurisdiction. For instance, the increase of wages outside of agriculture, in terms of land prices however, most of the factors are directly related to governments. Many public services distributed to farmers are less effective and has less visible impact on Myanmar's farmers (World Bank, 2016).

2.3 Government Intervention in Market

In general, most of the economic policies used in developing countries are limited to the growth of agricultural production and have impact on the rural poverty. Moreover, government intervention in every states' agricultural production in order to improve the market efficiency have frequently led to inefficiencies such as lower output and income (World Development Report, 1986). Therefore, it is very important to study the role of government in the market. Generally, it is not recommended for the government to intervene regularly and it should play a role as a facilitator and the intervention should be indirectly for the purpose of improving market infrastructure, information and institutional infrastructure. However, most of the countries usually intervene directly in the markets by setting the price in order to create lower price for the urban consumers. Nonetheless, nowadays, intervention of the government in the form of marketing boards is not well recognized (FAO, 2017). In the past, most of the governments in less developed countries tried to reduce the farm price in order to keep the food price low for urban populations' benefit and to avoid the increase of urban wages. On the other hand, in industrialized countries, government sought to increase the farm prices to please the farm lobby organization.

According to FAO, there are two main areas of policy intervention such as to reduce the hazard reduction in major natural disaster and the latter one is man-made disasters including wars and civil unrest. In such cases, policy makers need to give attention for both prevention mitigation of consequences. However, direct involvement of government intervention in production and agriculture should be reconsidered as it is less efficient than private sector involvement for sustainable production (Hardaker, 1997).

2.4 Factors Causing Government Intervention In Agriculture Sector

Ellis (1992) mentioned that stabilization is one of the most common reason for government intervention in agricultural market and it is the prominent feature in agricultural policies in both developing countries and industrialized countries. Furthermore, Timmer (1989) stated that government tries to stabilize the prices for various reasons. In terms of production, the purpose is to lessen the risk and to improve market supply by decreasing the necessity for farmers to rely on their own output and for farm income stabilization. From the perspective of the consumption side, the aims are to secure the stable wage cost for non-farm economy. Furthermore, it also seeks to protect the poor in urban areas from hunger and malnutrition

As agricultural sector is a crucial part in most of the developing countries, policy makers also take advantage of this sector to get the revenue by imposing tax on the commodities. As mentioned above, government influence in lowering the food price has more impact on the urban population of labor markets. On the other hand, this action can reduce the agricultural production and cause distortion of trade between the agricultural and industrial sectors. Consequently, it can lead to changes in domestic trade against agricultural commodities and prioritize on the urban-industrial areas. In many countries, the intervention and policy management tools evolved due to errors of policies. Sometimes, the independent agencies and state-owned enterprise entered to intervene without control from the main authorities. Finally, it can also have impact on welfare status of the countries. On the other

hand, the removal of the intervention can also lead to some distortion again and it should be implemented with strategic planning with enough resources (L. Roe, 1987).

However, for developed countries, the situation is different because the agricultural sector consists of a small portion of the economy. Therefore, in order for the economy to perform well, the agricultural sector is severely protected. Anderson (1985) argued that the agriculture protectionism can promote economic development in East Asian countries by turning taxation into subsidizing the sectors. Actually, state usually intervene when market function weakly. Bate (1983) stated that market intervention happened due to political rents allocation. This can facilitate the rural organizations who support the governments. Eventually, it is observed that countries which adopted the inward-oriented strategies (import-substitution- industrialization) are prone to imply such activities than outward-oriented strategies countries. However, the positive effect of government role can be seen in country such as Thailand which transformed its agricultural sector into the industrialized one successfully.

2.5 Asia and It's Rice Policies

About 40% of the world's harvested areas remain in the South Asia region (Gumma, 2011). As a matter of fact, Asia's agricultural policies are historically persistence, particularly for rice, a staple food for fifty percent of the global population and foundation of livelihood for approximately a billion of people. During 2010, the developing countries are major actors in global rice trade, and occupies 31 million tons of total world rice trade. Due to its importance both in political mobilization and as a prized commodity, interventionist policies persisted in this region. Most of the Asian countries control the movement of rice from in and out of the country through quantitative restriction on trade and state trading to protect the domestic market and food sufficiency. On the other hand, some large agriculture growing countries seek to increase the farmer's support price and launched the short-term policy such as subsidizing on inputs (fertilizers, seeds, electricity and fuel) in order to improve domestic rice production.

However, we can see that many rice-importing countries, utilized such policies to increase domestic production through incentives to farmers and implement subsidization of price on rice with cheaper price for poor consumers. In addition to that, highly crafted programs, including the use of price floors, loans subsidization and payments to stimulate the industry as to increase the income of farmers. Policies associated with “*production, consumption, and rice stock*” can be considered as domestic policies as any change in them might affect the performance of local producers and consumers. Many countries intervene in market for the purpose of stabilizing prices and established food sufficiency or security in their countries. Moreover, some major-rice exporting country implement the buffer domestic rice market through imposing an export ban for a short term and fix the minimum export price to ensure the sufficient rice supply in the domestic market (such in the case of India and Vietnam). Nonetheless, for some countries such as Nepal and Bangladesh, rice importing countries lifted the tariff on importing rice regardless of particular treatment to domestic producers but to make sure a stable rice supply in the domestic market. In Asia, both net rice-exporting and importing countries pervasively pursued a price support policy, mainly to protect the interests of farmers (Tobias, 2012).

CHAPTER 3

RICE INDUSTRY IN MYANMAR

This chapter provides an overview of Myanmar's rice industry and discusses the importance of rice sector on Myanmar's economy. To analyze the shift in the industry since its independence up to the year 2011, the following indicators will be used: the annual yield of Myanmar rice production, the allocation of irrigation for paddy as opposed to other crops by comparing the growth of rice production with domestic consumption, and the gradual decline in the volume of rice export throughout different decades. The last data set will show export volume and the market demand at the international market.

Myanmar was once the top rice distributor in the global market. Rice industry plays a significant role in ensuring food security and also important for political stability. Myanmar government has always prioritized the rice sector. However, Myanmar is no longer the world's top rice exporter. Currently, it plays a marginal role in the international market and becomes small exporter in the South East Asian region.

This chapter will explore the rice industry in Myanmar through four periods: colonial period (1885-1947), after independence period (1948-1962); Socialist period under the military regime (1962-1988); and the market oriented period under military regime from 1988-2011¹ which can be divided into two parts, first liberalization (1988-2002) and second liberalization (2003-2011).

¹ It is called State Law and Order Restoration Council (1988-1997) and named as State Peace and Development Council since 1997.

3.1 Importance of the Rice Sector in Myanmar

3.1.1 Contribution to GDP

Agriculture has been regarded as the main GDP earner for the country through successive military regimes. The major share of GDP generated from the rice industry in Myanmar's economic structure remained unchanged for several decades. In 1948 it was estimated to be 39.1 percent of the proportion that remained unchanged over six decades from 1988-89 (Teruko, Saito, 1999). Nonetheless, agriculture contributed 47 percent in 2005-2006 but decreased to 37.8 percent of Myanmar GDP in 2011. It also declined from 57 percent in 2001 to 36 percent in 2010 (Woods, 2015)

3.1.2 Employment

About 70% of the population stays in rural areas and Myanmar is still considered as an agricultural country whereby there are 5 millions of rural households working in the farming sector. Agriculture activities including livestock breeding and forestry is fundamental industry that employs approximately 50% of the total labor-force. Moreover, agriculture accounted for 64.3 percent of the working population. However, in the urban areas, the agricultural sector takes only 7.5 percent share of economic activities found there (MAS, 2011).

3.1.3 Staple Food

Rice is a fundamental food source for a large percentage of the world's population; it is consumed in 175 countries. In Myanmar, rice is the main commodity or staple food and rice consumption per capita is approximately 154 kilograms per year (IRRI, 2017).

3.1.4 Foreign Exchange

Table 3.1 Rice Export Earning (% of Myanmar Foreign Exchange (in million dollars)

Year	Export value of rice (in million dollars)	Total export value of Myanmar (in million dollars)	Percentage
1965	138	5,145	2.7%
1970	53	2,476	2.2%
1975	74	7,375	1%
1980	182	20,785	0.9%
1985	93	16,204	0.6%
1990	61	476.5	12.9%
1995	82	896.9	9.1%
2000	32	1,960	1.6%
2005	43	3,558	1.2%
2010	214	8,861	2.4%

Source: FAO Stats, CSO Statistics

Note: Conversion factors (kyat per US dollar in 1965-4.782, in 1970 the exchange rate was 4.802, in 1980- the exchange rate was 6.75, 1985-7.842, and during 1992- the exchange rate was 6.080), Valuation: The exports are valued at F.O.B

According to the figure, during the socialist period, from 1965-1980 the percentage of rice export was only 2% of the total export value and in 1985 the share of percentage decreased and accounted only for 0.57% of the overall foreign exchange money. It can be seen that during the SLORC period specifically in 1990, the percentage increase significantly to 12% of the total export earning. The rice export percentage of rice in 2010 was only 2.41% of total exports value due to the decline in rice export amount during this period.

3.2 Rice Production in Myanmar

3.2.1 Arable Land for rice production

There are 10 million hectares of forest reserve areas and 1.9 million hectares of fallow land. The total new area sown for different crops is 8 million hectares. Paddy is the main crop in the country and it is grown on 6.4 million hectares of land and off-season crop or summer paddy is grown in 1.2 million hectares (CSO, 2010). The country can be divided into five different regions depending on the agro-ecological and topographic environments. These regions include, Delta region, Lower Myanmar, Central Myanmar, Coastal region and the Hill region/Upper Myanmar. The vast deltaic plain of the Irrawaddy region and Sittaung Region have an annual rainfall of between 80 and 130 inches (during south-west monsoon between May and September). The land in these areas are extremely fertile and ideal for rice cultivation (Fisher, 1964).

The Delta and lower Myanmar region are the main rice-sowing areas and accounted for 62% of the total rice cultivation areas and also account for 65% of the total volume of the country's rice production. Rice cultivation in the Central Region of Myanmar, situated in the Dry Zone, depends highly on water supply. Thus, it becomes one of the biggest irrigated rice growing areas and covers 18% of the total rice-sown area. The remaining two areas account for 20% of the rice cultivated area in Myanmar. Among them, hilly regions are the country's largest rice deficit region. The coastal region is self-sufficient due to restrictions in geographic conditions. Thus, in some regions of upper Myanmar such as Chin State, maize and other grains supplement rice shifting cultivators, in the Chill hills and elsewhere; consume maize and millet, with rice a lesser share.

3.2.2 Irrigation Areas for rice production

Rice is grown during monsoon season (June to November) and summer (December to May) seasons. The rain fall during monsoon season is sufficient for growing crops without additional irrigation from dams, river and stream diversions or groundwater. However, when available irrigation coupled with drainage structures, it advances the stability of production and decrease the risks of flooding

and stagnant water. The purpose of irrigation and water supply in Myanmar is for paddy cultivation. In Myanmar most of the regions are cultivated with rain-fed paddy except for the middle part of Myanmar dry zone mainly practice irrigated paddy cultivation system. Supplemental irrigation is used for the monsoon season paddy cultivation in the central dry zone, where there is a shortage of water supply for crops.

Table 3.2 Irrigated areas for rice (1946- 2011, 5 years average) in million ha

Year	Total rice production areas	Irrigated area for rice	Share%
1950	3.5	0.5	13.8%
1955	3.9	0.5	12.4%
1960	4.1	0.5	11.7%
1965	4.9	0.6	11.9%
1970	4.9	0.7	14.3%
1975	5.0	0.8	16.0%
1980	5.1	0.8	16.7%
1985	4.9	0.8	17.2%
1990	4.8	0.8	17.6%
1995	5.4	0.9	15.9%
2000	5.8	1.7	30.4%
2005	6.2	2.0	33.8%
2011	7.2	1.0	15.0%

Source: From 1940- 1990 – Statistics on the Burmese Economy (19th and 20th centuries)
From 1991-2011 – CSO statistics

Irrigation is one of the most important infrastructures for rice production. In order to improve the efficiency of rice production, there should be more irrigation areas for rice sector. But in Myanmar's case, water is the central challenge for agriculture. In the mid 1940's, particularly during independence period, there were approximately 3.5 millions ha for rice and the irrigated areas for rice was only 0.5 million ha which accounts to 13.8 % of total rice production areas. Nonetheless, the amount of total of rice production areas rose gradually during

socialist period since 1960s and increased from 4.1 millions tons to 4.89 millions ton during 1986-90. As seen on table 3.2 above, the irrigated areas for the rice increased and accounted for only 17.6% of the total rice production areas at the end of the socialist period (1986-90). During this period, government invested a lot in irrigation work such as building dams, improving the drainage system and embankment as well as improving the existing network.

During 1988 -1999, the irrigation projects were improved by the Irrigation Department and the rice grown areas can see some increment during the SLORC period in early 1990s (Thein, 2004). The Irrigation Department under the Ministry of Agriculture and Irrigation attempted to provide more irrigation facilities in order to improve the agricultural production. With that, the total irrigation areas for rice had also risen gradually and reached to 2.0 millions ha during 2005-06 and taking approximately 33 percent of the overall rice production areas and increased to 7.186 millions ha in 2007-2011.

Although the total production has increased, the irrigation areas for rice have not improved much during the consecutive periods of the government. According to the above statistics, it is obvious that the irrigation areas for rice remained small amount although rice had been selected as major crop for Myanmar agricultural sector.

3.2.3 Technology

Myanmar agriculture is considered as a major enabler for economic development. However, the industry still use traditional agricultural techniques. In Myanmar, draft cattle were the main source of labor for rice production in past. Cattle were used at several stages in rice production such as threshing and transportation. The success of rice production in Myanmar was once depend highly on owning healthy draft cattle. For paddy growing, the labor costs account for nearly 40 percent of the total production cost. As for today. Cattle are still used but mainly for harrowing. Hand-pushed tractors are being used widely for harrowing, transportation and irrigation. Agricultural technology has obviously not improved throughout history and farmers still have to rely on livestock, such as cattle and oxen.

Thus, the lack of agricultural technology affects farmers' ability to grow and transport rice in bulk. It also affects irrigation and storage. More developed countries such as Japan and Taiwan have implemented tube water well system and silos to enhance the efficiency of rice production whereas Myanmar is still using primitive method and only recently developing agricultural technologies.

3.3 Growth of Rice Production in Myanmar

This table is the basic factor of paddy yield produced per hectare collected from the statistic from (Win, 1991), a researcher for early Myanmar rice development and FAO Statistics.

Table 3.3 Production of rice per hectare in Myanmar (1880-2011)

Year	Paddy yield (Ton/ha)
1880	1.5
1890	1.6
1900	1.6
1910	1.6
1920	1.4
1930	1.4
1940	1.3
1950	1.4
1960	1.6
1970	1.6
1980	2.5
1990	2.9
2000	3.3
2010	4.0
2011	3.8

Source: Figures from 1880-1985 data were collected from U Khin Win, A century Improvement in Burma (International Rice Research Institute [IRRI] 1991)
From 1985-2011 data were collected from FAOSTAS

From the data, it is clear that the amount of paddy yield increased from the colonial days in 1880s to recent years. From the colonial days to after independence, since 1880s to 1940s, the amount of paddy yield was stagnant and did not develop much. After independence days in 1950s, the amount of paddy yield reached to approximately 1.4 ton/ha. The yield become stagnant during this period throughout the period and it rose steadily at the end of the socialist period in 1990. After 1973, government implemented the program called “Green Revolution” by using the high-yielding variety (HYV) seeds and chemical fertilizers. The use of fertilizers was increased about four times in 1982/83 and due to this technology, the yield per acre of paddy increased from thirty-four baskets in 1974/75 to sixty-one baskets in 1982/83. As a result, Myanmar recorded a burst in economic growth in the agricultural sector from mid 1970s to early 1980s. However, between 1980 and 1987, the Green Revolution Program became less significant and agricultural sector returned to usual cycle of agrarian boom and bust (Thein, 2004).

However, after 1980s, after the introduction of market oriented sponsored by military regime, the production amount of rice rose once again and in 2010 it reached to 4.7 ton per hectare. From the figures above, it is assumed that rice productivity did not have much improvements and this could be due to hindrance factors such as low technology and insufficient subsidies from government or ineffective policies, which will be explained in the next chapter.

3.4 Rice Trading in Myanmar

Myanmar was once considered as the “Rice Bowl of Asia” due to the revolution of export-oriented, commercialized agriculture during British Administration. However, since 1963 the rice market was nationalized by Myanmar Government to fulfil the national security policy. The government shifted its priority to focus more on the domestic distribution of rice system through procurement strategies. Government took the main role in rice marketing and farmers were prohibited from making any decisions in selling their products. During Socialist regime the consumer welfare and food subsidies were prioritized and placed limitations on private

marketing system. State Economic Enterprise monopolized in selling and distribution of rice to consumers (Furnivall, 1975). Government lifted restrictions on agriculture export except rice during the first liberalization of the market in 1987. However, the state still controlled rice marketing in order to maintain the stability of the nation (Okamoto, 2005). During SLORC period in early 1990s, government policy prioritized domestic rice sufficiency and to have surpluses and to cultivate multiple crops. Therefore, pulses and beans were integrated in the global market as rice was not allowed by private sector. During 2003, government abolished the procurement system and the private sectors were allowed to do rice trading freely in the domestic market (Thein, 2004). Nonetheless there were many restrictions on rice export such as government imposed 10 percent on the rice export and set up the rice export quota for private sector which encouraged the private sector to participate freely in the rice trading.

Generally, Myanmar's government's agricultural policy throughout the regimes, regarded rice as the main staple food and tool to sustain political stability. Thus they did not liberalize the market until the end of military regime. As a consequence, Myanmar's rice export market declined significantly throughout the period.

3.5 Rice Production, consumption and export

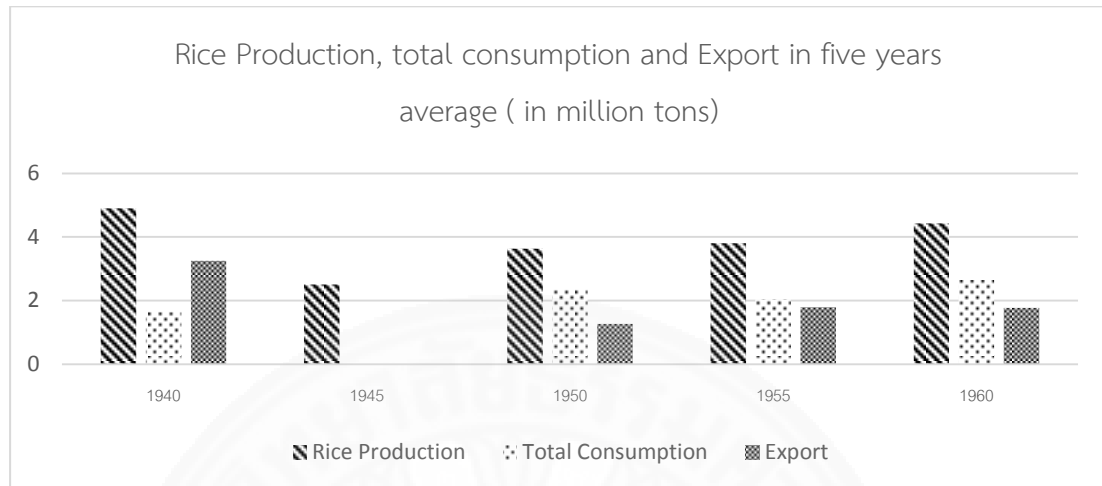


Figure 3.1 Rice Production, total consumption and Export from late colonial days to Post independence period in 5 years average (1940-1960) in million tons

Source: Ritcher (1969)

Notes: data for consumption and export during 1940s are not accessible

Figure 3.2 pertains to the amount of Myanmar's rice production from years 1937-1961 wherein the amount of consumption and value of rice export is reflected. It can be seen in the figure above that the country was able to produce approximately 5 million tons of rice from 1937 to 1941 in which more than half of the total production can be exported. It was also during this period where the population of Myanmar was only 14 million, hence resulting to a surplus in rice supply. However, during 1950's the amount of rice production became static, even though the population has increased 6 million more (Thein, 2004). Likewise, it can be observed that the domestic consumption of rice from 1950 to 1954 increased due to the effect of rice export restriction. Moreover, the demand for rice became prevalent at that time where as it became the staple food among the locals who developed preference for it compared to other crops and cereal. In fact, the population consumed rice three times a day (Win, 1991). After 1950's, the rice production gradually dropped to 3.79 millions tons and could export only 1.7 millions tons during 1954-58. With that, it can be observed that during the independence period of Myanmar, the rice production decreased.

Table 3.4 Rice production, consumption and export volume from Socialist Period to SLORC period (1965-2011) (in million tons)

Year	Rice Production	Total rice production milled rice	Total consumption (milled rice)	Exports
1965	8.0	5.3	3.8	1.3
1970	8.1	5.4	4.8	0.6
1975	9.2	6.1	5.5	0.2
1980	13.3	8.8	8.2	0.6
1985	14.3	9.5	8.7	0.5
1990	13.9	9.3	9.2	0.2
1995	17.9	11.9	11.1	0.3
2000	21.3	14.2	13.2	0.2
2005	27.6	18.4	17.5	0.2
2010	32.5	21.7	19.9	0.5
2011	29.0	19.3	18.8	0.8

Sources: Figures from 1940-1960 were taken from U Khin Win. *A century of Rice improvement in Burma* (International Rice Research Institute [IRRI] 1991)

From 1965-2011, FAO data accessed from IRRI World Rice Statistics data base

After independence in 1948, two significant periods of rice production in Myanmar emerged. The first one was from mid 1970's to mid 1980's making up the socialist period, and the second period, which was from 1992 to 1999 during the SLORC period. During the Socialist period that begins from the 1960's, the rice production increased dramatically especially towards the late 1980's due to the higher yield rate as government introduced new varieties in this period. With that, the country produced more than 14 million tons of rice, particularly in 1985. However, at the same time, the export of rice decreased relatively during this period where there was a drop that amounted from 1.3 million tons in 1965 to 0.8 millions tons in 2011.

The agricultural sector was obviously stagnant from 1962 to 1973 as both the technology and institutions did not improve significantly. Furthermore, weather

also became one of the main factors for the production level. The average annual amount of export was static after 1970s and average annual rice exported reached to its lowest volume of 0.2 million in 1975 throughout the decades. Factors contributed to the decrease in export of rice during this period is resulted from the policy that reduced the export due to increase domestic consumption and the official procurement system of government. On the one hand, due to the green revolution activities in mid 70s, the production increased during 1975 to 1985 by using the usage of modern technology (Win Htute. Sotaro Inoue, 2002). However, rice export declined from 1980's to 1990's due to government's domestic self-sufficiency policy. At that time, Myanmar's rice exports amounted to only 0.5 million tons constituting only 8 % of the total production.

During the SLORC period which began from the year 1988, rice production increased continuously, reaching to around 33 million tons in 2010. At the same time, the consumption also accelerated with the increased production from 9.2 millions tons to 19.9 millions ton from 1990 to 2010. With that, Myanmar's per capita on domestic use of rice increased as well from 1990s to 2000 as a result of an increase in per capita income and higher rice production. However, Myanmar's domestic consumption of rice decreased between 1997 and 1998 because of natural calamities such as severe flooding in 1997 and subsequent draught in 1998. In 2005, the amount of rice exported was only 0.2 million tons where it was the lowest amount ever recorded throughout the period accounting to only 1 percent of the total production.

Overall, it can be seen that the amount of rice export significantly decreased from 3 million tons to 0.867 million tons from 1930s to 2011 as there were no incentives for farmers in terms of the price and due to government restriction on rice export. Generally, during colonial days, from 1937 to 1940, more than half of the total rice production could be exported to the international market. Basically, it can be analyzed from the data that the Myanmar government focused more on the domestic rather than international demand. Thus, the policy was more directed to consumers rather than producers' or farmers' interests. Consequently,

during the 20th century, Myanmar was considered as a self-sufficient country where its role as a rice supplier to the world market effectively ended.

3.6 Rice Export in Myanmar

Table 3.5 Total production and Export of Paddy and Rice export from 1900- 2011
(in million tons)

Year	Paddy Production	Rice Export
1900	5.5	2.0
1910	6.5	2.3
1920	6.0	2.1
1930	7.2	2.8
1940	6.8	n.a
1950	5.4	1.1
1960	7.0	1.7
1970	8.0	0.6
1980	13.1	0.6
1990	13.7	0.1
2000	21.3	0.2
2010	32.5	0.5
2011	29.0	0.8

Source: From 1900 to 1960 data were taken from U Khin Win. A century of Rice improvement in Burma (International Rice Research Institute [IRRI] 1991)

From 1965-2011, data were collected from FAO Stats

As seen on table 3.5, it is obvious that the paddy production in Myanmar increased significantly from 1990s until 2011. However, the rice export declined from 2 million tons to 0.8 million tons from 1990 to 2011. It can be studied that the amount of rice export dropped significantly after 1960s (Socialist regime) and the amount reached under 1 millions tons. In 2000, during the SLORC period the export

amount was only 0.2 million tons. Generally, the rice export in Myanmar significantly declined from year to year since Socialist period whereby Myanmar government monopolized rice trade marketing and trading for domestic self sufficiency policy priority.

3.6.1 Destinations of Myanmar Rice Export or Trade

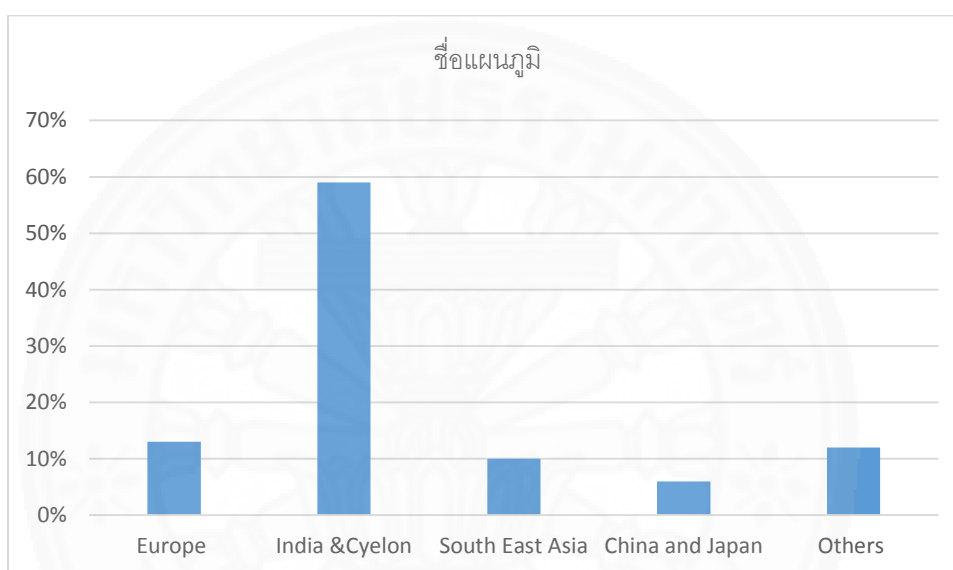


Figure 3.2 Destination of Annual Average Export of Rice and Paddy from Myanmar During Colonial Days (in percentage, from 1931-1940)

Source: Statistics on the Burmese Economy, The 19th and 20th centuries

According to the Figure 3.5, during the first few decades of the twentieth century, majority of the rice was exported to India and Sri Lanka (known as Ceylon at the time), accounted to 59% of the total amount of rice export. The rest of the rice export were distributed to Europe and its neighboring countries in South-East Asia. During Colonial days, China and Japan also imported rice from Myanmar although they purchased only small amounts.

Table 3.6 Myanmar Rice Export Destinations After independence days (1950-1960) (in % Share)

Year	South East Asia		Rest of Asia		Middle East		Europe		Africa		Other		Total Export Volume Million tons
	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	
1950	0.3	21.4	0.8	65	0.04	3.4	0.1	6.4	0.04	3.4	0.003	0.2	1.3
1955	0.5	26.1	0.9	52	0.04	2.8	0.3	16	0.1	3.5	0.002	0.1	1.7
1960	0.5	32.8	0.8	50	0.03	2	0.2	11.1	0.1	5.4	0.001	0.1	1.6
1965	0.2	24	0.4	55.1	0.01	2.4	0.1	11	0.1	7.6	0.001	0.1	0.8

Source: Statistics on the Burmese Economy, The 19th and 20th centuries.

Notes: South East Asia includes: Malaysia, Indonesia, Philippine, Singapore, and others

Rest of Asia includes: People republic of China, Ceylon, Hong Kong, India, Japan, Pakistan, Others

Europe includes: Middle East, Western Europe, U.S.S.R & Eastern Europe, Others

After independence days in 1948, Myanmar was still considered as one of the major rice exporting countries in the international market. It can be seen that the direction of target export countries also varied per year. During 1950 to 1960's, majority of the rice were exported to rest of Asian countries such as Malaysia, Indonesia, the Philippines, Singapore and others which accounted for half of the percentage of total rice export.



Table 3.7 Myanmar Rice Export Destinations During Socialist Period (1965-1988) 5 years average (in % Share)

Year	South East Asia		Rest of Asia		Middle East		Europe		Africa		Other		Total Export Volume Million tons
	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	
1965	0.2	24	0.4	55.1	0.01	2.4	0.1	11	0.1	7.6	0.001	0.1	0.8
1970	0.1	25	0.2	44	0.02	4.3	0.1	11.4	0.1	11	0.010	2.1	0.5
1975	0.2	33.2	0.1	32	0.00	2	0.1	15.5	0.1	13	0.034	6.3	0.5
1980	0.1	20.3	0.2	34.2	0.01	3	0.1	0.1	0.1	17	0.1	16.8	0.7
1985	0.1	24.6	0.09	26	0.01	3.8	0.03	8.7	0.1	35.5	0.011	3.2	0.3
1988	0.02	10.4	0.06	32.6	0.004	2.1	0.003	1.6	0.1	33.2	0.041	21.2	0.2

Source: Statistics on the Burmese Economy, The 19th and 20th centuries. (Saito & Kiong, 1999)

Notes: South East Asia includes: Malaysia, Indonesia, Philippine, Singapore, and others Rest of Asia includes: People republic of China, Ceylon. Hong Kong, India, Japan, Pakistan, Others, Europe includes: Middle East, Western Europe, U.S.S.R & Eastern Europe, Others 1979/80-1993/94, fiscal year ending 31 March, Rice Exports include white rice, boiled rice, broken rice and rice bran export. Rice bran exports consist of less than 10% of total rice and rice products of Burma. Rice Bran exports are excluded for the years 1974-1982/83 and 1993/9

Under Socialist regime, in 1960 to 1980s, the rest of Asian countries became the main importers of Myanmar Rice. Southeast Asian countries placed second, followed by the Middle East. Before 1960, Europe and Africa also imported rice from Myanmar but they only accounted for the least percentage of the total rice export.



Table 3.8 Destinations of Rice export During SLORC Period (from 1990 to 2010) (in % Share)

years	South East Asia		Rest of Asia		Middle East		America		Europe		Africa		Ocenia		Total Export volume
	Volume (million tons)	%	Volume Million tons	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Volume (million tons)	%	Million tons
1990	0.01	11.1	0.066	49.3	.003	2.2	0.01	7.5	-	-	.040	29.8	-		0.134
1995	0.3	73.7	0.044	12.4	-	-	0.02	7.3	-	-	.023	6.5	-		0.354
2000	0.04	18.3	0.174	69.3	-	-	-	-	.006	2.4	.025	9.9	-		0.251
2005	0.04	27.2	0.031	17.2	.090	50	-	-	.001	0.6	.009	5	-		0.180
2006	0.003	20	-		.012	80	-	-	-	-	-	-	-		0.015
2007	0.1	15.4	0.194	54.2	.04	12.3	-	-	.007	1.9	.058	16.2	-		0.358
2008	0.043	6.5	0.230	34.5	.01	1.8	-	-	.004	0.6	0.4	56.6	-		0.666
2009	0.136	16.6	0.014	1.7	.02	1.9	0.02	0.2	.005	0.6	0.6	78.7	1	0.1	0.818

Source: collected from CSOSTAT(2010)

Notes: South East Asia includes: Malaysia, Indonesia, Philippine, Singapore, Cambodia, Vietnam, Rest of Asia includes: People republic of China, Sri Lanka, India, Maldives, Republic of Korea, Bangladesh, Middle East: Iran, Oman and others, America: United States, Europe includes: Belgium, Netherland, Yugoslavia, Africa includes: Sierra Leone, Mauritius, Gambia, Ivory Coasts

The military regime took the administration from the Socialist government since 1988. After 1990 to 2004 rice was traded mostly among countries from Southeast Asia and the rest of Asia. However, it was obvious that after 1996, only a few amount of rice was exported to America, leading to a total termination of rice in 2009. Middle East countries (including Iran, Oman and others) became the main rice-importing countries of Myanmar during 2004-2006. According to the table 3.6, from 2008 to 2010 majority of rice was exported to African countries which took account for more than 50% of the total export volume. During SLORC period, the export decreased to 0.801 million tons due to priority on domestic sufficiency and due to government restriction policy on rice export.

This Chapter reflects the overall characteristics of rice industry in Myanmar where it demonstrated the decline of rice export since its colonial days until recent years in 2011. In fact, it can be said that Myanmar's agriculture sector did not improve much based on the data of yielding rates and the irrigation areas for rice in Myanmar. In addition, although rice production increased from year to year, there were a few surplus for rice export after deduction from domestic consumption. The local demand for rice also increased simultaneously with the increased in production. As a result, the country could not produce enough rice for export. In summary, this chapter described the characteristics of rice industry in Myanmar through the number of data as shown above. The facts which had been analyzed in this chapter will be further explored in details in the next chapter, including on the government's rice policies and strategies.

CHAPTER 4

EFFECTS OF GOVERNMENT'S POLICIES ON RICE EXPORT

This chapter will provide an analysis on the effects of government's policies on rice export since colonial days up to the SPDC Regime (State Peace and Development Council Period). The analysis basically to see a pattern & evolution that the policies provides, as well as reversal impacts such policies would have to the rice export. The analysis will focus primarily at the production, yield, consumption, trade and exchange rate of each particular period in order to clearly see the impacts in a holistic manner. The policy analysis will be divided into four parts; 1) Rice Policy During Late Colonial Days (1885-47) 2) Review of Rice Policy During Independence Days or Parliament Democracy Period (1948-62) 3) Review of Rice Policy During Socialist Period or Period of Market-Oriented Economy (1962-88) and 4) Review of Rice Policy under Military Regime (The State Law and Order Restoration Council (SLORC)/ State Peace and Development Council (SPDC) (1988-2011).

4.1 Rice Policies during Colonial Days (1885-1947)

Prior to British Colonization, Burma was well known as a rich and a well-endowed big Kingdom. However, due to its proximity to British Raj and its well known fertile soil, the British slowly took over the kingdom through terrorization and war. Devastated after 3 consecutive wars, Burma officially became one of the British East Indies colonies. Learning from their past experiences of running colonies, their first immediate attention would be to make the colony pays for its own maintenance, at the cost of local resources. The British realized the economic potential of Burma in 3 particular areas namely its precious teakwood, petroleum products from the forest (such as paraffin wax, candles etc.) and rice.

4.1.1 Government's Rice Policies

During the colonial days, the British government applied the “free enterprise rice policy” which encouraged the improvement of production and Myanmar's rice cultivation (Young et al., 1998). Furthermore, they expanded infrastructure between Upper Myanmar and Delta in order to improve transportation channel. They provided loans to develop the rice industry although it was not utilized by farmers. Government supported the commercial firms and private organizations in order to enhance the rice milling industry. Additionally, they provided a secure ownership title to property owners. In this period, “laissez fair” competitive environment led government to intervene less in production and trade asides from upholding the basic laws and order.

4.1.2 Production During Colonial Days

Production under British rule was expanded quite significantly during this period. Three main resources necessary for rice production namely land, labor and capital. To explain better, the aforementioned resources will be grouped into 3 areas. i.e. land title, land use and production subsidy.

4.1.2.1 Land

The British was quick to turn the swathes of land in Burma into agricultural hub of its colony in the East. The main intention was to boost the rice production through expansion of the cultivated areas. The agricultural activities at the Upper Burma expanded to the lower Burma and as a result the agriculture production was booming in this period. According to Cheng (1968), in the early twentieth century alone, there were 7 million hectare of rice field in lower Burma. The sown areas improved 1.5 million hectare in 1885 to 4 million hectare in 1910 respectively. During 1930s the newly developed Ayeyarwady Delta in lower Burma contributed 56% of total rice production. Furthermore, the rice production improvement during this period was significant due to the expansion of growing rice areas and it was increased from 44,000 mt in 1830 to 8 million ton by 1932. It can be analyzed that the improvement of this scale was mainly due to the land expansion for the rice grown areas. The British government uplifted the tax for 12 years on the newly cleared land. Besides, British land policy encouraged the occupation and

ownership of agricultural land by cultivators and the protection for the social welfare. Under this policy, the rice production grew significantly from 2 million tons in 1885 to 6 million tons in 1910.

In terms of land ownership, the British allowed farmers to own lands that they cleared themselves. At the same time promoting land tenure system such as attractive loans for interested pioneer settlers (farmers) and there were also private money lender mainly Chettiars from India. Overtime, the land ownership changed hands from the farmers to money lenders. This happened as farmers unable to repay loans in time, making the owners of production reduce to become beneficiaries of the industry. Farmers reportedly have to spend 84% of their output as a payment to the moneylenders and left the rest for their own. Chettiars, the money lenders from India kept nearly 25% of the agricultural land in rice growing areas in late 1920s and reached to 42 percent at the end of the decades. It was studied that during 1930-1937, Chettiars owned nearly 1.9 million acres in lower Burma alone in the course of 1930-1937 (Win, 1991).

During this time, British government set the polity to help transmigration in order to help expedite opening up of new cultivation areas. The British government introduced various immigration scheme for Indians to come and work in Burma, though land remained in the hand of the Burmese.

4.1.2.2 Production Subsidies

(1) Fertilizers

There is no report of subsidizing the fertilizer given to farmers during the period. The British experimented on the use of fertilizers, which reportedly an increase in yield by 30% to 100%. No commercial fertilizer and modern rice varieties were used by farmers. The farmers used their own initiatives to collect cow dung, bat guano, fish bone and left over from cotton and rice as fertilizer, it is found that the homemade cattle dung was the most popular for its availability in everywhere (Win, 1991). During the colonial time, there was no widespread pest occurrence or diseases that requires agrochemicals use, hence it limited the need and popularity of chemical products. Damage caused by crabs, rats and birds was usual and did not affect much on the industry.

(2) Varieties

There are many rice varieties in Myanmar and call differently in different parts of the country. Actually, there was no problem for the final products from these varieties yet British tried to mix the varieties to increase the production, and resulted as inferior quality of rice. The earliest attempt to classify them was done by Beale by classifying Burmese rice variety into 5 categories such as Emata, Letweizin, Ngasein, Medon, Byat. The classification based on the grain length, breadth and ratio of length to breadth (Beale, 1927).

However, during Colonial days, farmers utilized only the old seeds and strains what they had kept for long time which were resistant to pests and diseases. Distribution from government was limited and less popular among the farmers as the yield from the improved strains were less than to that of the local strains.

(3) Credits

According to the land expansion program in lower Burma, it required more investment for the pioneer farmers to workedwork the land. Agricultural loans and credit existed as the new pioneer farmers and family need money for survival before having their first harvest. There were two types of loans introduced by the government namely Land improvement Loan Act 1884 and Agriculturalists Loan Act 1888 which were offered at low interest rate. The loans were not popular among the farmers due to complicated process and many visits to officers before receiving the loan and strict rules. Myanmar people, Chinese, and south Indian moneylenders called “Chettiers” instead become a popular choice as it is far more easyeasier in getting loans, low interest rates and flexible date of payments. However, the farmers land has become the main mortgage items in order to secure the loans. Reason such as drought, pest fluctuation in rice prices forces the farmers to relinquish their titles and their land was confiscated (Win, 1991).

4.1.2 Yield and Production

Annual average yield for the country found to be missing, although some particular year can be found from time to time. Grant (1939) put the average national yield around 1931 around 1.7 tons per hectare. The earliest proper yield

record was made in 1913 by the Department of Settlement and Land Records (DSLRL). It is estimated that, the rice yield for 1913 stand at 1.8 tons per hectare and continue to decline to 1.5 tons per hectare in 1920s and 1930s, before slightly up to 1.6 tons per hectare in the 40s. The decline was basically due to two reasons. First, as yield estimations covering wider areas on different types of soil and climate and second, the, the decline of the land fertility as there was no treatment for the land (Win, 1991).

4.1.3 Consumption

Burma, as a rice surplus country, it had the highest per capita consumption about 200 kg per capita per annum and 50% more than the standard consumption level of Asian countries (Barker and Herdt, 1985). It is also difficult to estimate to get the accurate data for rice consumption per capita as the individual consumption is varied with age, sex, and location. Win (1991) described other factors such as prices, volume of rice export and other cereal availability and productivity of rice that can affects estimation. It was mentioned that the per capita rice consumption declined 64 kg/person in 1940 from 192 kg/ person. According to (Thein, 2004), the total consumption of during late colonial days during 1940s has more than 1.6 million tons while there were 5 million tons of total production.

4.1.4 Rice Trade during Colonial Days

4.1.4.1 Domestic Trade

Domestic trade involved many actors and stages. First, the farmer sold the rice to broker soon after the harvest at a price lower than the domestic price, which stand at RS 45 per basket 100 in 1855. The broker usually either rice traders, village broker or millers that had ties with the British government. Europeans companies such as Steel Brothers, Anglo Burma Rice Company, Ellerman's Arakan Company and Bulloch Brothers had the largest mills in the country, while medium and small size mills usually owned by the Indians, Chinese and Burmese millers. It was reported that, there was only 1 rice mill in 1861, and the number of rice mills increased to 54 in 1894 thanks to the opening up of the industry by the British. The British government gave license to these companies to acquire, mill, package, transport and trade Burmese rice in both domestic and international market

(Brown, 2013). The industry have a positive domestic demand throughout the period, as Burmese consumed about 200 Kg or rice per year (Barker & Herdt, 1985). During 1930 to 1939, the export price of was double 73 rupees per ton while the domestic price was only 30.6 rupees per ton.

Table 4.1 Domestic and Export Price for Paddy and Rice (During colonial days)

Year	Paddy		Rice	
	Domestic price Rupee/ton	Export price Rupee/ton	Domestic Rupee/ton	Export Rupee/ton
1931	30.6	52	n.a	73
1932	32.7	49	n.a	74
1933	32.7	41	n.a	58
1934	34.3	45	n.a	60
1935	46.5	54	n.a	74
1936	42.4	56	n.a	74
1937	47.8	53	n.a	74
1938	46.5	50	n.a	71
1939	47.8	58	n.a	79
1940	n.a	n.a	n.a	n.a
1941	n.a	n.a	n.a	n.a
1942	n.a	n.a	n.a	n.a
1943	n.a	n.a	n.a	n.a

Source: Statistics on the Burmese Economy

4.1.4.2 Export

During British colonization, Myanmar exported about 60-70% of its production (Win, 1991). Export activities mainly dominated by European firms as stated before. The European companies acquired the unhusked rice from the farmer directly or through broker at a price lower than the domestic price (RS 45 per 100 basket in 1855) and sold it according to the international market price, which normally higher than domestic price. The opening of the Suez Canal in 1869 made

the Myanmar rice export possible production from Oriental countries to Europe. Burmese rice were traded with much concentration to Europe, South America, West Africa and British Colonies such as Ceylon (Sri Lirilanka), Singapore and the rest goes to East Asian countries. Due to the nature of the exports focusing on exporting to British linked to colonies, Burmese rice was not subjected to any tax, likewise other colonies produce will not be tax in Burma. Furthermore, rice accounted approximately 75% of the total seaborne exports dominated by a single commodity.¹ The annual average rice export from Burma had increased to 65,000 tons in the final decade of nineteenth century. By 1930, Burma managed to export approximately 2.1 million tons of rice, making it the biggest rice exporting economy in the world.²

¹ Followed by Petroleum products (one-tenth of the export value) and Teakwood (one- twentieth of the export value)

² Although, Odaka argued, this happened primarily due to an increase in demand for rice overseas, mainly from India and Malaysia (Odaka, 2016)

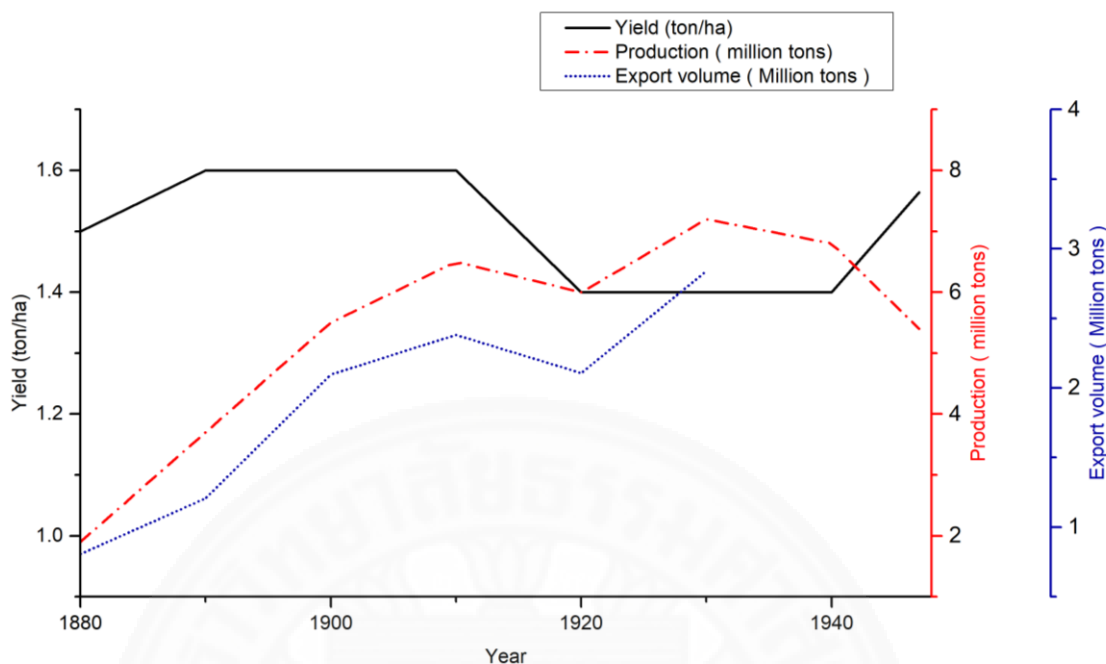


Figure 4.1 Rice Yield, Production and Export Volume for Colonial Days (1885-1947)

Source U Khin Win. A century of Rice improvement in Burma (International Rice Research Institute [IRRI] 1991)

4.1.5 Exchange Rate Policy

In terms of the exchange rates, India Rupee was used as the main currency throughout of the period, there is no report to find outstating that the exchange rate system had impacted on the rice industry during that time.

In summary, “Free enterprise rice policy” during British Colonial increased triple the production tripling from 2 million ton in 1885 to 6 million ton in 1910. Rice remained as the main industry throughout the full decade of Colonial rule and rice export reached new record in the world and accounted 47 percent of the total world rice export in 1938 despite the value of rice export declined substantively during the depression years. ActuallyIn actuality, the production improvement during this period was mainly due to the land exptanension activities in lower Burma. British government also helped to improvedimprove the rice industry in Burma by allowing the industry to take off and introduce market elements to rice exports management. Nevertheless, there was no solution for the problems to solve

the social economic problem between the landlords and small farmers during this period and it led to an increase government intervention and socialist policies after independence days.

4.2 Rice Policy After Independence Days (1948-1962)

4.2.1 Government Rice Policies

Myanmar gained her independence from the British on 4th January 1948. After gaining independence, there were two economic plans were introduced reconstructions such as “Simla Plan” or “White paper Plan” and “Two Year Economic Plan” were prepared. The first plan was drawn by the British Government which aimed to improve the rice production and reaching the rice export level to prewar level. Some firms which involved in the trading before the war were invited in this plan. However, that plan was not implemented as Myanmar gained her independence on 1948. Nonetheless, the second plan which was drafted by Burmese political leaders which emphasized on the land tenure problem, low rice yield and due to inadequate amount of rice export export. Government took this plans into these actions after independence although it was not successfully implemented.

During this period, rice remained as an important export commodity of the economy and contributed to the country’s foreign exchange. However, there were notable changes that can be seen immediately after it gained independence. For example, the government nationalized this rice industry in order to free the industry from foreign holdings. Another notable changes happened during this period was the transfer of management of the rice industry into the hands of government’s agencies.

Since independence days, government initiated “food grain policy” such as maintaining food sufficiency and food security to promote the social welfare for the people. Furthermore, it was started to lower the domestic good grain price in order to maintain the low cost of living and gave supporting for socioeconomic stability. Government tried to raise the foreign exchange by expanding the the

production and promoting rice export via implicit laws for food grains. As a major difference compare to Colonial days “export promotion” was still maintained through a mixed economic system that preserved a leading role for the free market. Export promotion of the colonial era remains integral although it is adapted to a kind of mixed economic system.

Contrary from the way the British run the industry, the succeeding governments profited from the industry at the expense of the farmer such as government rice procurement, Five year Agricultural Plans and the nationalization of the industry which create a setbacks to the industry, resulted in a sharp decline in gross profit generated by the industry.

4.2.2 Production After Independence Days

4.2.2.1 Land

After independence, the succeeding government realized that, it is necessary to managed the industry that served as to manage properly the rice industry which was the backbone of Myanmar’s economy. As a consequence, they tried to take over the role of supervision and management of this industry. During this period, government abolished the landlordism system and land reform was initiated again. The purpose of the land nationalization implementation was to allocate the firm equally again for all Burmese and to weaken the colonial land practices such as corvee and land lord. It seems this ideal policy provided a secure land tenure-ship and freedom to develop their land in order to make a living. However, this proved to be not an easy task as Burmese exchange their land titles for a mere lump sum of money and soon after return to become labor for someone else’s lands. Therefore, it can be said that, this policy affected the rice industry in such a way it distorted the labour market as well as macro management of the industry.

4.2.2.2 Production subsidies

(1) Fertilizers

In order to improve the production, government provided free fertilizers with expansion of irrigations across the country. However, the fertilizer and agrochemical usage was still unpopular and low as farmers considered that it

could damage the quality of the soil. However, starting from 1957 farmers initiated started to use the fertilizers widely (Win, 1991). During the promotion period, government provided fertilizer as free or with credit.

(2) Varieties

The new government introduced new rice variety for the farmers to cultivate and forced them to grow using seeds that needs little attention and care. These seeds however would only produce low quality rice due to technical problem could not contribute much to agricultural development. As a consequence, this affected the overall reputation of Myanmar's rice industry at the global market.

(3) Credits

During 1952, government released "Five Year Agricultural Plan" which aimed to provide incentive for farmers to create high yield in rice production. The plan helped to the plan helps to create micro credits for farmers to reduce their debts as well as to give some room for them to do more.

There were two types of loans for farmers in this period. The first loan was revived from the old system of agricultural loans and another type was delivered under the Land Improvement Act. Walinsky (1962) mentioned that this drew back the rice cultivation area more than 153,780 ha of land in 1953. Government attempted to support the loans needed for farmers with low interest rates. Government established the State Agricultural Bank in 1953 and formed the village agricultural bank branches. The SAB provided the loan to the village bank with an interest of 6% per annum and while the village bank charged 12% to farmers). Other loans channel such as Agricultural and Rural Development Cooperation (ADRC) also provided loans to farmers for special crops such as rice and rubber, cotton and jute. However, the problems of the farmers still unresolved due to the insufficient amount provided by government and inefficient operation of the lending operation.

It is studied that although government credit system could not fulfil the requirement of agriculture credit where it needed 200 million kyats and government loans only supported 25 percent of the requirement (Win, 1991). As a

result, this allowed the private money lenders were allowed to work with farmer with high interest rates.

4.2.3 Yield and Production

The yield recovered slowly again in this period and reached the prewar level again in 1958. Win (1991), argued that the decreased of yield in this areas was due to unstable political situation. The yield went down during the war years 1945 and rose again after independence. The rice yield in 1960 reached to 1.7 ton/ha from 1.1 ton/ ha in 1945. The production also rose again during 1960s however it still lower compared to the level attained during prewar level. In terms of the production, it can be seen the a significant of the production improvementd from 5.164 million tons in 1948 reached up to 7.085 million ton in 1960.

4.2.4 Consumption

Rice consumption during independence days was higher than during late colonial days. The average amount of per capita consumption for rice was increased from 64 kg/yr in 1940 to 107 kg/yr by 1960. The total domestic consumption was increased to 2.6 million tons in 1960 from 2.3 million tons (Thein, 2004). However, it was criticized that the amount of consumption was increased apparently due to the restricted rice export during that time.

4.2.5 Rice Trading After Independence Days

According to the Simla Plan, to reorganize the rice industry including rice production, processing and marketing process; Agricultural Project Board was established in 1945. However, it was renamed as State Agricultural Market Board (SAMB) (Mya Than, 2004). Since that timethen, SAMB became the main organization that oversees the industry on behalf of the government.

This board took the responsibilities of both procuring and exporting the rice from the European entrepreneurs and their subsidiaries. However, the milling process no longer ran by the private companies as practice before, but the responsibilities were transferred to the farmers. Learning from their experience, the board transformed into become State Agricultural Marketing Board (SAMB), as they realized the challenges of finding new market destinations for Myanmar rice became difficult. In this new body, the government noticed their limitations on both

manpower and resources therefore decided to disbranchfranchise the process of acquiring and assembling rice to appointed brokers and resellers while the board focused on exporting matters of the industry. At first, this new restructuring worked well, yet as price cheated by the brokersbrokers creeps in, the industry started to move in the wrong direction. First, the government planned to profit from the industry as much as they can. Prior to this arrangements, the government procured the rice on a fixed rates, making the farmer in disadvantage. The procurement price given by government was usually about 10-15% lower than export price (Mya Than, 1990).

4.2.5.1 Domestic Trade

As the previous days, rice traders from local and foreign firms and rice millers started to procure in the local areas. By the time, Tthe brokers normally procured the rice in much lower prices than the fixed rates as stated by the government, profiting from such practice until the next regime. At the same time, government allowed reseller to sell the rice at thefor domestic consumption while government taking the tab of subsidies. In such way, it allowed both brokers and resellers to get profit from such arrangement while the government did nothing to stop them.

Further discouragement came from steep government intervention by procurement and export for grain and there was also some intervention in domestic rice retail marketing in order to distribute the rice to the poor. On the other hand, the private traders were still allowed to do trading in wholesaling and retailing of food grains in free trade market. Government maintain a relatively stable rice market during 1948-62 with the inflation kept reasonably well control (Young et al., 1998). Rice industry had been dominated by government by making the industry to follow instructions from the State level and disallowed farmers to innovate.

Farmers initially were given quotas to fulfill under the rice procurement program. The quota normally given prior to planting season and the procurement price normally were announced prior to the harvesting season. As the

government program the industry such as way, farmers still had chance to make their own decision in where to grow their rice and whom they have to sell.

4.2.5.2 Export

After independence, SAMB started to control the flow of rice in both domestic and global market on behalf of the government. During this period, rice export destinations reached out to South East Asia including Malaysia, Indonesia, Philippine, Singapore, Rest of Asia (Republic of China, Sri Lanka, Hong Kong, India, Japan and Pakistan) and rest were exported to Europe involving Middle East, Western Europe, Republic of the Soviet Union, Eastern Europe and others. During this period, India, Indonesia, Sri Lanka and Japan were the main major buyers for Myanmar. The rice export had declined from 3 million ton in 1940 to 1.7 million tons in 1960 because the major countries became self-sufficient and the low rice quality problem of Myanmar rice.

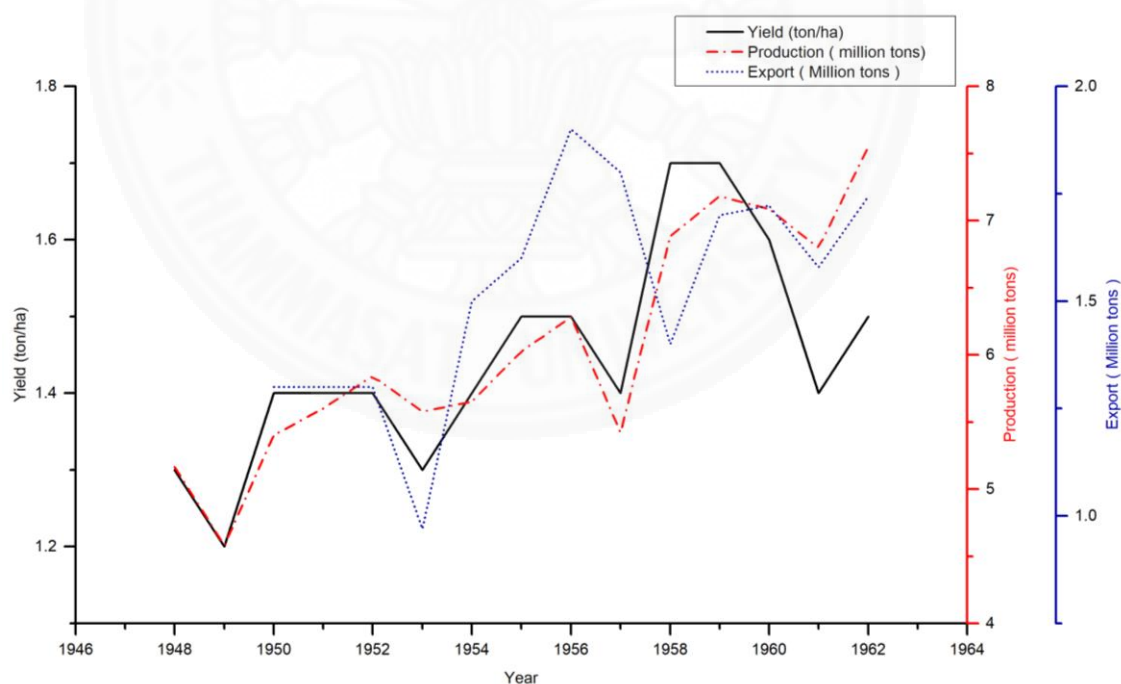


Figure 4.2 Rice Yield, Production and Export after independence days (1948-1962)

Source: U Khin Win. A century of Rice improvement in Burma (International Rice Research Institute [IRRI] 1991)

4.2.6 Exchange Rate Policy

After Independence days, Myanmar started to use Kyats currency in the country and started the official usely exchange rate system during 1948. thereThere were 3.31 kyats per dollars and at the end of the socialist period, the exchange rate existed more or less the same and 4.477 kyats per dollars in 1961.³ There may be however black market for exchange rate during this period there is no report which mentions the overvalue exchange rate system exist for this period.

As can be seen above, the independence government basically continued British legacy in the rice industry. The only thing that changed is, now the industry ran by Myanmar people. Production and yield increased around 1960s can be said due to the infrastructure development such as upgrading dams and drainage system. Due to the labor migration to the urban areas this time, it was also one of the challenges to recover the rice area during this period. And lit can be seen that the sown areas were stagnant during this period as labor moved to urban areas and difficult to get back the rice land. During this period, the yield was not increased slowly from 1.3 ton/ha in 1948 to 1.5 ton/ha in 1962 due to the improvement of infrastructure such as dam and drainage system. In terms of export, the amount declined significantly from 3.1 million tons during post colonial period to 1.7 million tons during post independence days (see the above figure). During thate time, the volume of export depended highly on the demand from international market and major buyers became self-sufficient countries.

It is quite clear that mismanagement at the state level together with inappropriate policy led to decline to the rice industry in Myanmar. Although government encouraged rice production, it was still not enough to neutralize the effects of the mismanagement in rice industry. The study found out that the lesson learnt from the Colonial days led the new government to intervene in the rice market although allowed farmers to grow rice freely. Although, the rice production rose after the independence the amount of rice export had declined by half when comparing to the colonial days.

³ Statistics on the Burmese Economy, The 19th and 20th Centuries

4.3 Rice Policy during Socialist Period (1962-1988)

4.3.1 Government's Rice Policies

Following years of stagnant socio and economic growth, the country economic collapsed by civilian government. The Prime Minister at that time, U Nu, gave the chance for the military to intervene in Myanmar's politics, which lasted for almost 50 years. In 1962, the military launched a coup to replace the civilian government with military administration which lasted for 26 years (socialist military regime). It is quite obvious that, what kind of ideology the military going to utilize following the coup. Less than a year, 3 major documents were released; all directed to socialist ideals⁴. Immediately after that, almost all businesses and industries including trade, forestry, mining and some infrastructure, such as hospitals and schools were nationalized (Thein, 2004). This mean, the rice industry also affected as the management of the industry strictly followed that of socialist ideals. Therefore, under Burmese ways of Socialism, all agricultural produce, small businesses, assets and infrastructure such as distribution, transportation(river road) and external trade (some retail trade) were became under close supervision by the State or cooperatives. This period marks state total controlled over all modes of production within the country and subsequently resulted in rapid declined of Myanmar's rice industry.

The changing of government administration had majorhad influenced on the agricultural development. This will be discussed further in this part of the chapter. During this period, government set up three objectives for agriculture sector 1) to fulfil the food sufficiency, providing raw materials for the industries 2) to enhance the export or surplus products in order to raise the capital investment within country (Win, 1991).

⁴ The Burmese Way to Socialism, The Constitution of the Burma Socialist Programme Party and The System of Correlation of Man and His Environment

4.3.2 Production During Socialist Period

4.3.2.1 Land

Although the military took the administration role in Myanmar since 1962, the proper agricultural policies was released only in 1978. Agricultural policies basically during socialist period was quite similar in its undertaking with the independence period. Government released the 'Tenancy Law' in 1965 which abolished the tenancy in many areas of Myanmar and affected nearly 25% of the total cultivated areas in Myanmar (Mya Than & Nishizawa 1990). As a consequence, this led to the implementation of a state-wide socialist program based land tenure-ship during this time. On the other hand, the land were distributed to the poorest farmer with no capital under to promoteing equity system, which turned out this also adversely affected on the productivity of rice. The lost of land ownership resulted in protesting farmers and lack of initiative for them to increase production.

The socialist regime expanded the agriculture program activities since 1963, the agriculture areas were classified into two categories such as planned and non-planned areas. The government designated lands for cultivation across the country for specific vegetation or crops, according to their geography, climate, soil suitability and sustainability. However, in the program areas, the crops were limited according to government demand. The crops under the program areas were included rice, cotton and pulses were decided depends on the basic of main requirement (Thein, 2004). On the other hand, government used the subsidies such as distributing the fertilizer as incentives to farmers in order to increase the production. Although there were some lands allocated for the non- program areas, government limited all kinds of aids and subsides to force farmers to join the Program areas.

4.3.2.2 Production Subsidies

(1) Fertilizers

Government hand outused the subsidies such as distributing the fertilizer as incentives to farmers in order to increase their production. Although there were some land allocated for the non- program areas, government limited all

kinds of aids and subsidies to force farmers to join the program areas. On the bright side, the government supported agriculture input such as fertilizer with better quality seeds with low prices. The usage of fertilizer became more important during this period due to Modern Rice varieties which can increase the rice yield. Farmer began to accept accept fertilizer due to MVs variety, which can notcannot be exhibited their high yield without fertilizer. In this way, government continued to provide free fertilizers as an incentive especially to the program areas.

(2) Varieties

The most notable changes here is the introduction of new hybrid seeds and some other varieties that helped to improve the quality of rice. During this period more than 2000 of varieties had been grown by the farmers (Win, 1991). Different from the during independence era, the government generously provided the seeds for the farmers in exchange of fulfilling their quota for procurement in a slightly higher fixed price than during the independence period. As a consequence of the Green Revolution, high yield varieties of seeds and chemical fertilizers helped to expand rice production in the 1960's up to the 80's. During late 1980s the rice production rose significantly from 7 millions in 1960 to 13 million by 1987 (Thein, 2004).

(3) Credits

The socialist government also expanded credits options which promoted the credits activities during that period. Government increased its credit from 48 million kyats in 1963 to 167 million kyats in 1974. Credit per acres⁵ was raised while the interest rate was lower from 12 to 9 percent per year. However, the cultivation cost kept increasing over time and the new lending system could cover only 11 percent of the total production during 1973 (Mya Than, 1980). Farmers were allowed to pay back their credits through cash or paddy during harvest time. On the other hand, for the non program areas, there were discriminately not allowed to access such incentives.

⁵ 1 acre = 0.4 hectare

4.3.3 Yield and Production

The agriculture sector was stagnant during this period (from 1962 to 1973) as there was no substantial improvement of technology or institution. During late 1970s and early 1980s, the yield and production increased dramatically again due thanks to the modern rice varieties, more usage of chemical fertilizers and farmer's accepting to developed agronomic practices (Win, 1991). The yield was relatively increased from 1.6 ton/hectare 1970s to 2.8 ton/hectare in early 1981. As a result, there was a spurt growth in the rice production between mid 1970s and early 1980s.

4.3.4 Rice Consumption

Rice Consumption during this period increased considerably due to the government emphasized on the domestic distribution of rice. The per capita consumption of rice was 148kg in 1985 while there was only 107 kg in 1960 (Win, 1991). The domestic consumption relatively increased from 2.2 millions ton in 1961 to 13.2 millions tons at the end of the Socialist period.⁶

Table 4.2 Domestic consumption of Rice During 1961-88 (in million tons)

	1961	1974	1977	1987
Domestic Consumption	2.2	4.6	4.7	13.2

Source: Report to Pyithu Huttaw on the Financial Economic and Social Conditions for 1988/8

⁶ During 1987 production increased 13.7 millions tons from 3.8 millions in 1961

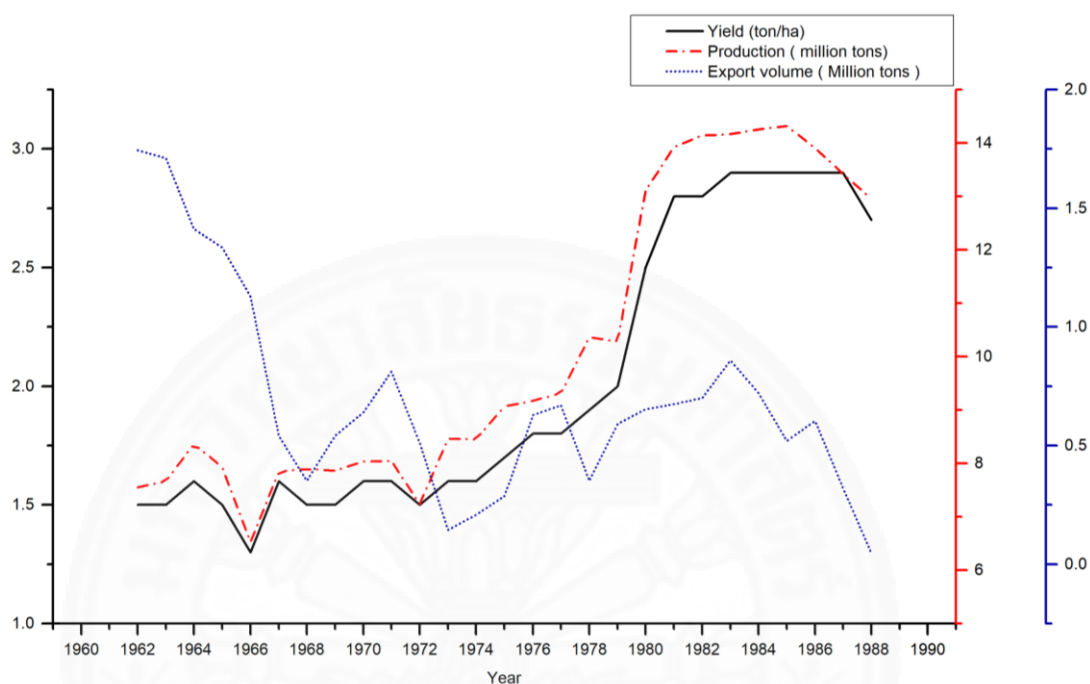


Figure 4.3 Rice Yield, Production and Export during Socialist Regime (1962-1988)

Source: U Khin Win. A century of Rice improvement in Burma (International Rice Research Institute [IRRI] 1991)

4.3.5 Rice Trading during Socialist days

4.3.5.1 Domestic Trade

The way the socialist government managed the procurement and trade not much of a different from the previous era. State Agricultural Marketing Board (SAMB) was renamed to Union of Burma Agriculture and Marketing Board (UBAMB), which took over all matters related to rice procurement and sales. Furthermore, as government revenue system depended on the compulsory delivery systems, where farmers had to sell their products to the government with fixed price which is usually below the market price.

The government set out a policy of domestic self-sufficiency 1963. This mean, the government was unwilling to sell rice unless it came from the surplus after meeting domestic demand. At the same time, domestically, Myanmar rice was continued to be subsidized by the government in order to support domesticthe social welfare program, further lowering the income of the government. Consequently, this led to the farmers' discouragement to expand their production and yield (Thein, 2004). During 1973, government reviewed again the rice price for procurement and raised double of the price as they noticed the real the cost of cultivation was high. By the time, the quota amounts were considered in terms of cultivated areas and yields. At first, this looks like it going to help to boost the productivity. However, as it becomes clear that, despite a little boost from the new fixed rate it was still lower than free market price (Table 4.3). Since 1973, the sale of compulsory paddy was implemented in domestic rice marketing system. The distribution was under the management of the State with fixed price and government monopolized in both inter-regional or inter- divisional trade. Private sector was permitted only within division and for farmers, they were commanded for limited milling only enough for home rice consumption. Rice procurement took nearly 20-30 percent of the total output during this period.

During 1980 to 1987, the procurement price was the same (472 kyats per ton) and which was below the free market price. It was noticeable that the surplus of paddy was declined despite paddy production was increased (Thein, 2004). The scholar mentioned that this led doubts on the report of increasing of rice production or because of neglecting in maintaining the facilities after harvest period become the main factor.

Table 4.3 Prices of Rice Price During Socialist Period (1962-1987) (In kyats/ton)

Year	Procurement		Export Price
	Government	Free Market	
1962	149	166	443
1965	149	147	484
1970	172	281	465
1975	431	679	1,756
1980	472	1253	1,506
1985	472	2521	1,317
1987	472	2,879	820

Source: Report to Pyithu Hluttaw on the Financial, Economic and Social conditions for 1988/89; Review of the Financial, Economic and Social Conditions for 1989/90; Selected Monthly Economic Indicators (Various issues)

4.3.5.2 Export

The socialist government tried to continue sending Myanmar rice for export, although with limited number of stock for export. It is reported that, due to inability to improve the productivity to fulfill both domestic and global demands, Myanmar rice export was in constant decline from 1.749 million tons in 1962 to almost zero in 1988, only 0.047 million tons could be exported. As one of the scholars Mya Than suspected, the rice export decline during this period can be accounted due to the government procurement system where there was a wide gap between the procurement and market prices of paddy (Mya Than, 1992). Although the destinations of the rice export early in this period were the same from the past mainly to Asia such as Singapore, Indonesia and Philippines. After the 1980s, according to the sufficient policy of these countries, Myanmar started to look for the new market such as Africa (Thein, 2004).

4.3.6 Exchange Rate Policy

In terms of exchange rate, it remained overvalued throughout this period. The socialist system persisted until 1987. The official exchange rate for kyats per dollar 4.47 was relatively increased to 6.41 kyats per dollar by the end of 1988.

of the Socialist period. During this period, government seemed to adopt the black market economy (Aung Khin, 1983) and the overvalue exchange rate might persist throughout of the period.

In summary, although government changed few policies from the previous period such as enhancing the credit activities, the level of government intervention in rice industry in marketing process were changed considerably. Government controlled the activities including production process, milling, infrastructure and in exporting. From the study, it is noticed that there were no incentives for farmers (low rice price and not enough credit system) led to lower the production during this period. Although government tried to increase the production in order to fulfill their procurement and increase the rice export, the industry was collapsed and reached to minimum amount of export at the end of socialist period.

4.4 Rice policies under Military Government⁷ (1988-2011)

In late 1980's, Myanmar faced challenges from many fronts, such as menacing public, unhappy farmers, failing socio economic conditions and regional trends that deliberately affected domestic politics. In order to keep the country intact, new generation of military generals launched a coup against their own socialist (military) party and establish a junta called State Law and Order Restoration council (SLORC). Almost immediately, the junta abandoned most of the socialist era policies and returned to the pre socialist order and policy. For the next 23 years, the junta slowly liberalized the economy, including the rice industry. This section will analyze in detail on two liberalization periods conducted during that time and its effects to the rice industry in Myanmar. The first liberalization sees a limited liberalization from a total state control to market oriented in all sectors of the economy. In the second liberalization however, the real liberalization as the state prepared itself for a full

⁷ it was called State Law and Order Restoration council or State Peace (SLORC) until 1997 when a reorganization was undertaken and it was renamed SPDC (State Peace and Development Council)

deregulation of the economy, although the rice industry remained close in some parts. This period describes new policies being introduced which resulted to new challenges and obstacles due to changing nature of way of doing things outside of Myanmar.

During this period, agricultural marketing reform proceeded in two steps. In 1987 the domestic marketing reform was stated and 1988, government implemented export liberalization. Since early 1987, the agriculture reform was initiated with advanced technology and the socialist party reduced their total control over 9 agricultural commodities including rice. In September that year, the socialist government considered to liberalize the agricultural industry, though limited to domestic part.

4.4.1 First Liberalization (1988-2002)

In 1987, government abandoned the agricultural procurement system and “Burmese ways to Socialism” itself. They enacted decentralization policy decontrol of agricultural marketing resulting in a high boom for agricultural prices, especially rice, which caused the “Democratic Movement” in 1988. The 8888 uprising in 1988 forced the party to dissolve and the new junta took over the country. In the early 1988, Myanmar agricultural economy was liberalized in limited form including crop choice decisions, compulsory procurement, and internal trade. The junta made it their priority to return the economy to pre socialist period by first stimulating domestic economy. Under the SLORC period, government launched the market-oriented system and planned to increase the rice production. One of the food grain policy objectives during this period was to “produce surplus paddy for domestic food security and for promotion of exports.”

4.4.1.1 Production After First Liberalization

(1) Land

According to the 1988 Union of Myanmar Foreign investment law, farmers could not decide and do foreign dealings in agriculture. In 1992-93 due to the summer paddy program, many farmers were induced to choose paddy in dry season (Thein, 2004). Government restricted the land only for rice growing and

farmers in the non-program planned areas were free to grow rice. However, during the dry season, farmers were interested to grow crops other than rice as there was no quota requirement was imposed (Pingali & Siamwalla, 1993). In addition to that, farmers were encouraged to grow summer paddy program that translated into an increase in rice production. This strategy had been proven to be a burden in terms of economicsto maintain forto the military government because they had to spend more budget on the main irrigation channels and some dams in this duration. As a consequence, this led to the failure of the strategy due to mandatory cultivation especially in the area where no irrigation and little interest cultivation loans or not suitable for the summer paddies (Thawngmung, 2008).

Myanmar government also implemented “Regional Rice Self-sufficiency promoting Policy” since late 1990s, many areas were encouraged to grow rice in unsuitable land such as in Central Dry Zone and mountainous areas like Shan State and Kachin State (Odaka, 2016). The main purpose of this plan was to expand the rice cultivation area towards land frontiers.

In 2001 government launched another policy, the land owned by the State and farmers were allowed for tillage rights. However, farmers had no authorization for the (exchange, transfer, lease, inherit, or mortgage their land, although offspring of farmers were permitted to cultivate their parents’ land, the transfer of cultivation right was unofficial (Takahashi, 2000). This showed that the State had the absolute power for tillage right for farmers.

The cropping pattern strategy was made by the government in accordance to the official policy. Farmers were also aware of the challenges if they did not follow the government’s crop plan policy, they would be exempted from government subsidy. Thus farmers needed to obey and grow the paddy according to the crop plan policy. Then, the official statistics mentioned that half amount of rice production during from 1990/91 to 2000/01 was due to area expansion (Takahashi, 2000). During the late 80s, about 1 million acre of land had been irrigated. The numbers jumped to almost million acres in 1999 due to the Summer Paddy program whereby under this program, paddy was planted during the dry season.

(2) Production Subsidies

1. Fertilizers

The government stopped free distribution of fertilizer since 1973 and started selling them in with zero interest. In the late 80s, the military government struggled to keep the subsidy and aid had been given to the farmer. Official Development Assistance (ODA) especially from Japan was halted immediately. As a result, the military government slowly withdrew its subsidies such as fertilizer and diesel oil to farmers. By 1990s, the price increased rapidly almost similar to the price at the international market price. Government ceased its operations on selling fertilizer in 2005 (Odaka, 2016).

The fertilizer usage was 75 kg per hectare in the peak year during (1985) but decreased to 30kg in the early 1990s. Fertilizer usage in Myanmar was lower than the average international standard.⁸

2. Varieties

Increased infrastructural development of irrigation system and flood control also facilitated high yield varieties particularly in Summer Paddy program.

3. Credits

Myanmar agricultural Development Bank supported farmers with seasonal crop loans but the loan amount was too small and less than 10 % of the actual cost of cultivation.

In terms of the “Provision of Agricultural Credit”, Myanmar Agricultural Development Bank remain responsible for this matter. Its main function was to support the agricultural sector improvement, livestock and socio economic

⁸ since data for fertilizer input per hectare for rice cultivation only is not available, we have the study used the average figure in kg for the total cultivated area in 2000/01. It was 285 kg in Vietnam, 90kg in Thailand, 130 kg in the Philippines and 256 kg in China. The increase in fertilizer application in Vietnam is quite prominent; it was only 88 kg per hectare in 1990/91, but jumped by almost 3.2 times over a period of 10 years.

businesses around country by providing banking services. However, the loan was not covered although the credits was increased, it was less than 10 % of the actual cost of the cultivation (Thein, 2004). By observing this insufficient support from the government, it was clear that farmers could not invest enough capital to increase paddy productivity. The military government continued to mill the rice procured from the farmer. If the government-owned mill was not enough, the government delegate the job to private miller. The government paid the miller using service fee similar to the broker, as a result, the availability of private miller was less due to the low pay from the government side.

Although farmers could get loan from other financial institutions such as “Myanmar Economic Bank (MEB) and Myanmar Small Loan Enterprise, there were only a few number of these financial institutions located in the rural areas.

4.4.1.2 Rice Yield and Production

During this period, rice sown area significantly increased from 24 million acres in late 1980s to 40 millions acres in recent years.⁹ The production of paddy was decreased due to inactive expansion of paddy production in Myanmar after the mid-1990s. This was due to the deterioration of summer paddy cultivation whereby farmers had to rely heavily on private investment for pump irrigation and expensive diesel oil resulting to farmers receiving little profit. Double cropping, the summer paddy program which was introduced since 1992 with irrigation, the high yields in the areas could not be compared with the previous 10-15 years.

⁹ There is of course the possibility that the rapid increase in the sown acreage in the late 1990s is the result of some statistical adjustment

Table 4.4 Rice yield and production after first liberalization

Year	Yield (ton/ha)	Production paddy (million tons)
1988	2.7	12.9
1989	2.8	13.6
1990	2.8	13.7
1991	2.7	12.9
1992	2.9	14.6
1993	2.9	16.8
1994	3.1	18.2
1995	2.9	17.9
1996	3.0	17.7
1997	3.0	16.6
1998	3.1	17.1
1999	3.2	20.1
2000	3.7	21.3
2001	3.4	22.0
2002	3.4	21.8

Source: IRRI (FAO STATS)

Furthermore, according to the USDA data, it was criticized that government staff over-reported and rice production reached 18 millions according to FAO in the late 2000s and where remain around 10 millions tons in the estimate of USDA (Odaka, 2016).

4.4.1.3 Consumption

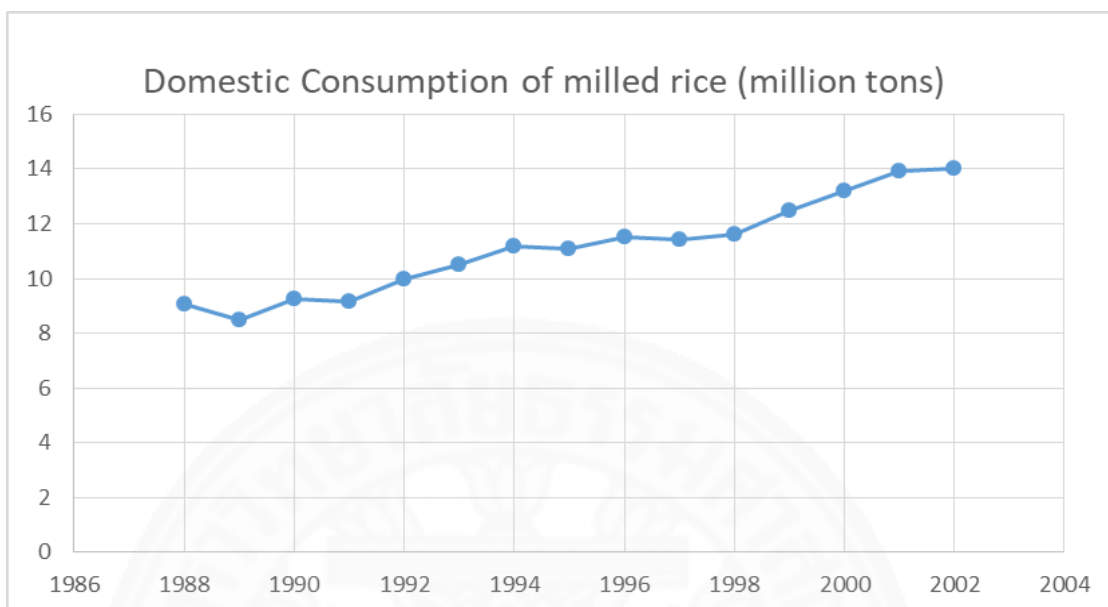


Figure 4.4 Domestic Consumption of milled rice (from 1988-2002)

Source: IRRI (FAOSTATS)

According to the above data collected from FAO statistic, it is noticed that the amount of consumption increased gradually from 9 million tons in 1988 to 14 million tons in 2002.

4.4.1.4 Rice Trading After First Liberalization

(1) Domestic Trade

The first liberalization eliminated the restriction on private millers and the rice trading restriction in terms of the geographical areas. MAPT was still responsible for the marketing of rice paddy and distribution of rationed rice for the target group. For domestic trading, government did not intervene in private sectors' direct purchase of commodities from farmers. Farmers also had freedom to sell their rice directly to the customer after fulfilling the procurement demand from the government. On the one hand, the government needed to, first, ensure there would be sufficient rice supply for them through procurement policy. Thus, this meant that rice traders had no absolute freedom in domestic trade. There were three

situations that the government intervened in the domestic market (Okamoto I., 2009). The first situation was traders had to get permission from the local authorities when they did rice transactions at the border areas. In reality however, there were no restrictions on rice marketing around the country after the first liberalization. Government set up some monthly procurement quota for the private sectors and this meant that private traders could not purchase rice in the amount that they want. Government considered that the rice export to remote areas could raise domestic rice price. As for the second reason, the government intervened in domestic trade when the procurement amount of rice was below the government demand and private traders could not buy paddy or rice from farmers at that time. This was particularly true in the remote areas of deficit regions; private traders were not allowed to purchase from farmers during the procurement seasons. Thirdly, when the rice price increased in the domestic market, government usually check on rice traders' activities in the market at both rural and urban areas. As mentioned above, the domestic rice trading was also not fully liberalized for the private traders.

Under socialist period, the government distributed the rationed rice to general consumers (people stay at food deficit areas) with low price. When the population increased over the years, government fiscal deficit for rationing expanded. As a result, government could not raise the procurement price and this disincentive made farmers reluctant to cultivate rice. In 1987, the discontent and reluctance peak made the government fail to procure sufficient supply of paddy at its low procurement price and led the government to reform the rice marketing policy. Thus, rice rationing system for general consumers was abolished and continued only for the budget group including military personnel and civil servants. On the one hand, the rice ration system only benefitted consumers in terms of price and not quality and that the recipient sold back to the traders in order to feed livestock.

As the compulsory procurement of rice was temporarily abolished in 1987, the farmer had the opportunity and freedom to sell the rice directly to customer. This helped them earn more than what they could earn through previous systems and at the same time avoid from being abused by both

the government and the brokers. However, as Takahashi put it, the farmer remained controlled by the government during the socialist era of agricultural systems such as planned cropping system, procurement system and state ownership of the land (Takahashi, 2001). On the other hand, lowering the quota (from 10-12 baskets per acre to 1 basket of paddy equals 20.9 kg) was still a heavy burden to rice farmers. First, the procurement price was below the domestic market price and the disparity range of 50-60% (Okamoto, 2005). The farmers' burden was heavier than the official statistics if the yield per acres was 60 baskets as mentioned by the official statistic, the burden on farmers would be less than 20% of total production. There was a possibility that officials over-reported the production according to USDA data. Furthermore, the burden would be more if the actual yield was only 40-45 baskets, the burden would be 25-30 % of production.

However, the procurement system which had been abolished in 1987 was implemented again in 1989. Government continued to collect 10% procurement from total production. The military government even collected the quota for procurement in areas which were reserved for home consumption. The farmers were constantly forced by MAPT staffs to meet the government quota. However, volume of paddy procurement from government declined one third after liberalization. The volume of paddy procurement reduced from 1.5 tons per hectare during socialist regime to 0.5 tons (Okamoto I., 2005). The government decentralized the procurement system to the broker and keep the procurement price intact. Instead, each farmer needed to pay broker fee of 8% per service. For farmers, it became a burden because 8% of service charge was considered as expensive and seemed to be taking advantage of farmers' hard labour. However, the government procurement was based on per acre basis, not through how much per acre produce. This found to be quite a disadvantage for lower productivity or less marketable surpluses.

Government still kept control on rice for certain political economy reasons. By taking control over the rice industry and its processes, indirectly, the military took control of the economy. Furthermore, the practice of keeping rice price low continued to ensure sufficient supply of rice for the

population as well as to keep the public officers and servants satisfied. As a consequence, farmers had just enough amount as they were prohibited from conducting private rice trading which then led to a considerable decrease in production, productivity and quality of rice. The compulsory quota system was still retained until 2002 by the SLORC. The domestic rice price was still 40% lower than the international price during 1993 (Fujita & Okamoto, 2006). As the amount of rice export was low in this period, supply and demand status in the domestic market determined the rice price.

Farmers responded by selling low quality of rice to the government and sold their best to their local customers. Hence, the problem of the decline in quality of rice exported continued during the military regime (Takahashi, 1993). While the rice export increased, government thought that the domestic rice price was more and less under control. According to the rice production policy in 1990s, there was rice surplus in the domestic market while the profitability of rice deteriorated and rice price collapsed in 2000-01. However, in 2002 the rice price increased again temporarily as farmers was not willing to grow paddy due to low rice price and the declining of rice production due to bad weather. Therefore, government started to reconsider deregulating the private rice exporting.

(2) Export

Government made a decision to liberalize the rice export in sdespite the constant increase in domestic demand (Thein, 2004). The SLORC government attempted to improve the rice export by providing some incentives such as extending new agricultural loans in addition to routine seasonal export crops (rice, pulses, beans, maize and oilseed). And reducing the exemption or decrease in some import tariff and by conducting some educational workshop to support private entrepreneurs in terms of business management and marketing. Furthermore, government opened more branches of Myanmar Agricultural and Rural Development Bank services in villages (Soe, 1994). Despite the production incentives, the export growth was limited as the SLORC maintained some various restrictions on exports and imports such as rigid and inflexible foreign exchange rate policy.

SLORC government lifted a ban on private export of agricultural commodity, not including rice. The military government renamed the Union of Burma Agriculture and Marketing Board (UBAMB) to become a state owned company named Myanmar Agricultural Produce Trading (MAPT), which held the right to procure and sell Myanmar rice to global market. Despite all these, the first liberalization intended to be a limited liberalization of the agricultural sector as to return the macro management of the industry to pre socialist era with the hope that the industry could increase its production at the same time help the economy running. Rice export had been declined since 1988 except 1995 when 1 millions tons of rice could be exported due to “Summer Paddy Program” which started in 1992/93. The monopoly on rice export was significant as means to control the domestic rice price for general consumers who were excluded from the rice rationing system after first liberalization.

On the other hand, although government attempted to boost export, their primary concern remained similar to the socialist period. The government put an emphasis on securing rice for domestic market and whatever left in government hand afterwards, would be exported abroad. Hence, the amount of rice exported abroad dropped significantly. It reached its peak in 1995, when 1 million and 41 thousand tons of rice were exported, but until today this amount could no longer be achieved, except in year 2000 when it reached 939 thousand tons. The inferior quality of Myanmar rice also limits willing economies to accept low quality of rice from Myanmar. As the state marketing sector emphasized more on quantity rather than quality, the low quality of procured paddy limited the destination countries for Myanmar. Hence, during that time the South East Asian countries and Middle East countries and Africa became the main destinations for Myanmar rice export. Under the state monopoly, rice export declined from 42 percent of total export earning in 1980 to 3.2 percent in 2002 (CSO, 2006). This led to Myanmar rice export irregularity for the world demand. In 2002-2003, main importers of Myanmar rice were South East Asian countries and the Middle East countries. Nearly, 85% of Myanmar rice were exported to low income countries at less than the market price (Lwin, 2010). Despite the export of rice by private sector was not

allowed, some rice and other agricultural commodities were still smuggled across the border areas, mainly to China (Young et.al., 1998). As a consequence, the illegal exports led to problem in data collecting in Myanmar.

The first liberalization was considered as limited liberalization; from state control to market oriented in all sectors of the economy. During this period, the procurement system which was abolished in 1987 was reintroduced again in 1988 and sustained until 2003. Rice marketing during this period was sustained with the shrinking of the procurement system deficit in comparison to the socialist period and the reduction quota obligation compared to the socialist period. Monopoly on rice export was significant to be used as a tool to control the domestic rice price for general consumers who were excluded from the rice rationing system after first liberalization. Myanmar had failed to implement its liberalization of rice policy, which had rooted in the socialist regime and it should be noted that Myanmar experienced social unrest three times during socialist period triggered by sharp increase rice prices.¹⁰ Government continued to stick with the policy to increase rice production until 2010 instead of providing farmers with economic incentive. It can be said that the government's first liberalization was not successfully implemented as it turned back to production-oriented strategy and low price policy in the domestic market in order to maintain political unrest and for the social welfare of the urban people.

¹⁰ they occurred in 1967, 1974, and 1988.

Table 4.5 Destinations of Myanmar Rice Exports After First Liberalization (Volume) %

	1990/91	1992/93	1994/95	1996/97	1998/99	2000/01	2001/02
Southeast Asia	11.2	2.0	61.0	50.5	55.5	18.3	39.1
South Asia	49.3	37.7	9.5	21.5	15.8	69.3	5.3
The Rest of Asia	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Africa	29.9	57.3	26.5	26.9	25.8	10.0	0.0
Middle East	2.2	3.0	0.0	0.0	0.0	0.0	39.1
North and South America	7.5	0.0	1.4	0.0	0.0	0.0	0.9
Europe	0.0	0.0	1.5	1.1	2.5	2.4	6.1
Oceania	0.0	0.0	0.0	0.0	0.0	0.0	9.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total exported amount (Thousand Tons)	134	199	1041	93	120	251	939

Sources: CSO, Statistical Yearbook (1997, 2001, 2006)

4.4.2 Rice Policy After Second Liberalization (2003-2011)

4.4.2.1 Government Rice Policies After Second Liberalization

During second liberalization in April 2003, three more policies were established. Firstly, to open the rice export for private sector, second to abolish paddy procurement system and the last policy was to retain the rice rationing system by procuring rice from the traders instead of farmers for Budget group. However, when the rationing system ended in 2004 the private rice export sector was again prohibited by the government. The main purpose of the second liberalization was to enhance foreign exchange by increasing rice export. Since 1990s, the government tried to improve the rice export sector by increasing the procurement from the farmers. As the plan was not effective, government changed their strategies to focus more on private sectors and this led private rice millers to be the members of “Rice Trading Leading Committee”.

Myanmar’s ruling elites realized that despite the liberalization efforts, the country could not close its door any longer. Myanmar government was also pressured to initiate market oriented reforms according to the

structural adjustment program. Myanmar have been a member of WTO since 1995 and Association of South East Asian Nations (ASEAN) since 1997, showing the junta's commitments to reduce tariff and non-tariff barriers over a targeted period, at the same time making adjustments to prepare the country for global market. Finally, they had to lift up the protection on agricultural sector including rice and create trading networks with other countries.

In April 2003, Myanmar government announced the second liberalization of rice marketing in order to certify a profitable paddy price for farmers and also to ensure a fair price for the consumers (MAPT, 2003). Okamoto (2005) named the reform in this period as "First phase of a real marketing liberalization". The main change under this liberalization for the industry was holistic abolishment of restrictions to the industry such as paddy procurement system, state monopoly to market and sell rice as well as considerable drop in rationing system, to be replaced with other kind of incentives.

4.4.2.2 Production After Second Liberalization

(1) Land

During this period, most of the land policies still remained the same as socialist period where state owned all land on the other hand granted to tillage right. It is noted that land policy and land use system in Myanmar are not efficient enough to land improvement activities. As a result, land degradation and land worsening the land productivity had taken place. The SPDC also introduced many programs to increase the land cultivation area in Myanmar including the 'Summer paddy program' and set up plans to regain back the land from the delta region. However, the program became not productive after 1995 due to not sufficient inputs. Farmers with no sufficient fertilizer and insufficient credit for fences, construction of embankments and finally lead to unsuccessful extensive production (Okamoto et al. 2003). In terms of crop choice it is noted that government continued to enforce cropping plan called " Pillar Crops " for paddy in areas with irrigation facilities for paddy.

(2) Production Subsidies

1. Fertilizers

The official price of fertilizer was kept low for 15 years until 1987, however the price rose closely to international price after 1990s. As government tempted to withdraw the subsidies while the official price was increased regularly. Government contributing to fertilizer became decreased significantly in 2005 due to difficulties in sufficient supply (Okamoto & Fujita, 2006). It was mentioned the main input such as fertilizers are too expensive for farmers to afford and 80% of Myanmar cultivation land face irrigation problems (Dapice, 2003). Moreover, it is found out that the utilization of input of chemical fertilizer for rice production in Myanmar was quiet low from socialist era to early 2000s, the input fertilizers for rice was ranged from 15 to 30kg NPK/ha. Even for Thailand, where rain-fed lowlands are dominated and 20% of the rice sown area is irrigated, the nutrient input is approximately three to six times of Myanmar (IRRI, 2009).

2. Varieties

Despite higher yields in the summer crop on account of 100% adoption of high yield varieties (HYVs) compared to 59% of usage HYVs in moon soon crop of 2011 crops. The summer crop production accounted for 17% of total production.

3. Credits

In terms of credits, the formal institution not offered to most of the farmers and only less than 3 percent of the bank loans reached out to agricultural sector. Majority of the decisions were taken by State owned Myanmar Agricultural Development Bank (MADB). Contradictorily, the private banks were not allowed to lend for farming (FAO, 2004). In 2003, although rice trading was formally liberalized domestically and internationally, State still influenced the decision taken by farmers in production, how, where and what should be produced. On the other hand, the development of MADB for seasonal loans for rice cultivation was significant. The per acre loan amount for rice was raised from 8000 kyats in 2008 to 40,000 kyats in 2011.

The rural famers could not access easily to formal institutions (either public or private) and historically limited in Myanmar. In terms of microfinance it can be said that it was underdeveloped up to early 2010s. It was

more a challenge for farmer who has no major asset such as land. And They had to borrow from the employers as a wage advance and sometimes the interest rates were approximately 20-30% per month (Okamoto I., 2008b). As a consequence, the under developed ment of institutional finances (including microfinance) led to underdevelopunderdevelopedment of agriculturale sector in Myanmar. The scholar (Turnell Turnell,(2009) criticized) criticized that Myanmar rRural areas had never experienced of “ beneficial”beneficial “ development” indevelopment in financial market.

4.4.2.3 Yield and Production

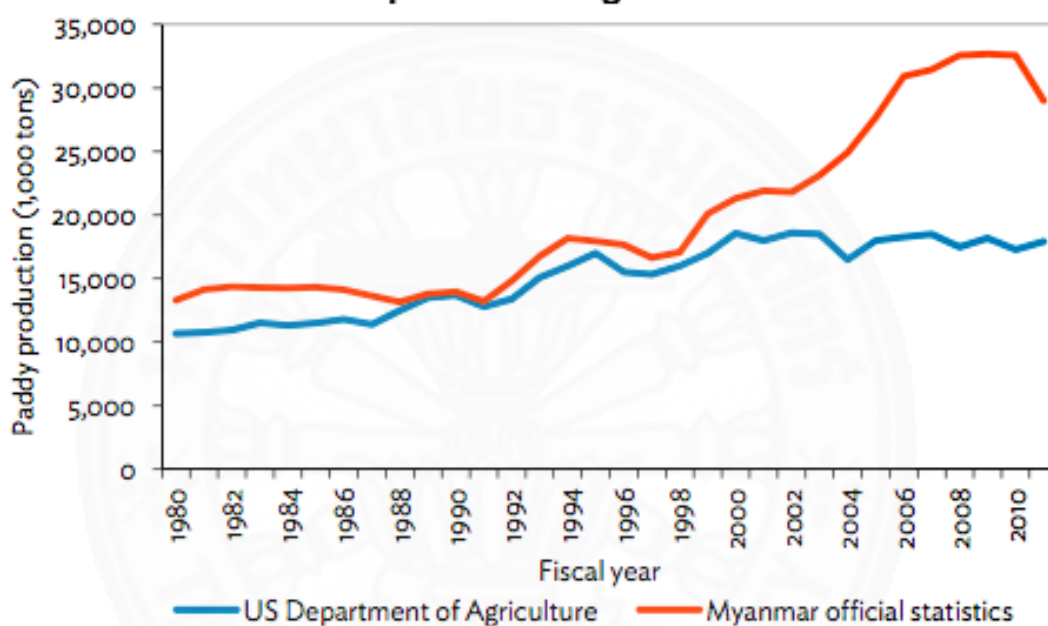
Table 4.6 Yield and Production after second liberalization

Year	Yield (ton/ha)	Production paddy (million tons)
2003	3.5	23.1
2004	3.8	24.9
2005	3.7	27.6
2006	3.8	30.9
2007	3.9	31.4
2008	4.0	32.6
2009	4.1	32.7
2010	4.1	32.6
2011	3.8	29

Source: FAOSTAT

According to the table (4.6), after second liberation, the production increased from 23 million tons in 2003 to 29 millions tons in 2011. The summer rice area only rose from 1.1 million hectares to 1.25 million hectares while the monsoon rice area grew from 5.2 million hectares to 6.76 million hectares. In addition, the yield rate of summer ice grew faster as nearly 100% of rice were grown with high-yielding varieties, only 60 % of the moon soon rice over this period (Wong & Wai, 2013). Meanwhile, there is some uncertain production statistics according to the figure (4.5). There was a difference gap between the two data sources (FAO) which

worked closely with Myanmar government and other independent source such as United State Department of Agriculture department (USAD). The former source mentioned the data as twice as the latter one. As paddy is the major agriculture product, the uncertainties of the data have distorted the understanding of the agriculture performance in Myanmar and hinder the planning of effective policy establishment and sharing of the accurate market.



US = United States.

Sources: US Department of Agriculture, Foreign Agricultural Service. <http://apps.fas.usda.gov/psdonline/psdhome.aspx>; Food and Agriculture Organization of the United Nations, FAOSTAT. <http://faostat.fao.org> (both accessed 20 April 2014).

Figure 4.5 Annual Production of paddy according to US Department of Agriculture

4.4.2.4 Consumption

Regarding to per capita consumption of rice, Department of Agriculture, MOAI, calculates the country's rice surplus, assuming per capita consumption of paddy to be 15 baskets of paddy (that is 312 kilograms (kg) of paddy or 187 kg of rice) for the rural population and 12 baskets of paddy (that is 250 kg of paddy or 150 kg rice) for the urban population. Nonetheless, according to the Food and Agriculture Organization of the United Nations (FAO) food observation, rice

statistics showed that per caput food use in Myanmar is 239 kg per year in 2011/12, the highest in the region, as indicated in Table (4.7). However, it should be noted that this is for per capita food use.

Table 4.7 Per Capita Food Use Based on FAO Rice Statistics

Countries	2007/08 – 2009/10 Average Per caput food use (kg per year)	2010/11 (Estimate)	2011/12 (Forecast)
Bangladesh	149.0	153.0	154.2
Thailand	128.7	133.5	136.8
Vietnam	186.2	186.9	187.4
Myanmar	237.9	240.0	239.0

Source: FAO 2012

4.4.2.5 Rice Trading After Second Liberalization

(1) Domestic Trade

During second liberalization, the deregulation of domestic rice marketing cannot be overemphasized as it was completely liberalization 42 years after the establishment of Myanmar socialist period. MAPT itself lost its existing role to who controlled the rice procurement and rationing systems for long time. It was expected to reduce the government intervention in some situation. And the rice marketing was expected to be less controlled by government. However, according to government rice policy framework, the private rice market only could implement in remaining scope of the rice marketing area without judging the objective of government policy supplying rice at low prices. Thus, the private sector could survive in the domestic market under limited conditions and demand to the low and moderate quality of rice. As a consequent, government could not highlight anymore on the deregulation of domestic rice market after prolong controlled by government since socialist regime.

In terms of procurement, government abolished this system in 2003. Government eliminated the rice procurement as the benefits were not sufficient to justify the cost of retaining it. Although rice procurement system was abolished, the rice ration system was still retained for the bBudget group and rice was still needed to procure from commercial traders by paying market prices. Government realized that they could not afford to purchase at market price for long term and in 2004 the rationing system was abolished. And aAs compensation, for the rationed rice each person received 5,000 kyats per month. This was also quite alarming for the government public servant if the rice price went up even in little amount. This was real concern because there were signs that price increases would accompany link to that of export liberalization efforts. This possibility frightened the government, decided to freeze private rice export. Then government reformed the plan without discussing with the private sector under the objective to stable supply of rice with a low price.

According to Odaka (2016), rice price up to 2009 was determined basically by the supply and demand conditions. The domestic rice price in Myanmar during the period was relatively (40-60%) lower than the international price, especially compared to the Thai export price (Fujita & Okamoto, 2009). As rice is the staple food and managing rice price is important issue in Asia especially for rice-exporting countries. Thailand also suppressed the domestic rice price at around 60% of its export price through an export system called “ Rice Premium” is used for a long period of time (Choeun et al. 2006). There is no doubt that in case of Myanmar where a large number of people, such as landless agricultural laborers in rural areas and urban population exists, the problem is more severe. Therefore, government hands still played an implicit role in the industry such as keeping the price low for domestic consumption and limited regulation on rice marketing by the private sector. Although government attempted to boost the rice surplus export, in order to stabilize the domestic market price, the government established the Commodity Price Stabilization Committee and set up the ceiling price which could restrict the increasing of domestic rice price.

On the other hand, the main objective of stabilization of price at low level were to avoid the social unrest and this become government considering more on the production rather than for farmer's income and welfare (Okamoto & Fujita, 2006).

(2) Export

In terms of export, the main purpose of the second liberalization was to allow the private sector in rice exporting and share ing the foreign exchange between government and private equally. The MAPT did not procure rice from farmers and allowed private sector to export as they would stop the rice exports. Basically, the plan was introduced to rice exporters could recollected only half of the foreign exchange in local currency and the other 50 % would be retained by government. Although the domestic rice price was swollen at the time, government suspended its decision to liberalize the rice export while the rice rationing system was abolished in 2004 (Odaka, 2016). The original plan was for the government to open the rice export by giving the rice export license to the private traders. Traders who attained the license could export within a quota which was set up by the government where government took half of the foreign exchange earnings (45 percent of total earnings after deduction of 10% export tax). On the other hand, government repaid the marketing costs such as transportation and labor cost for 45 % of rice export but in local currency. From the issuing of the rice export license government could collect 0.5 million tons of rice and 0.27 million tons were finally exported.

During second liberalization, with the nonexistence abolishment of Myanmar Agricultural Producing Trading, there was no procurement system and this was noticeable as the end of government intervention in this industry. Although liberalization came a little too late, yet such efforts to enhance the improvement of the rice industry. Eager private traders sprang up across the country wanting to join in the business of selling and exporting rice once dominated by the government. To compensate the loss of income from procuring and selling rice, the government however put a flat rate export tax about 10 %. During 2007 December, the chairmen of the Commodity Price Stabilization Committee and the

Export Import supervising Committee introduced the regional rice surplus structure. The delegates from State Peace and Development Council (SPDC) and the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) and rice exporters also involved in that meeting and export quotas and export companies for rice surplus regions also decided. Additionally, the clear targets for the domestic and market price were set up to prevent consumer price slogs due to rice export. Not only the shipping schedules but also the number of rice export companies for different regions to purchase the rice surpluses and even the designated countries were decided from that meeting (Lwin, 2010).

After the second liberalization, rice export in Myanmar continued to decline on yearly basis and could only export 0.4 percent to 12 percent of its rice surplus when comparing to 40 to 60 percent of rice surplus in 1994-95 and 2001-2002. One of the main reasons given was the increasing number of smuggled rice on the black market (Lwin, 2010). As the government removed its hands from the industry, it not only encourages the stimulation of 'official' trading, it also creates a bigger opportunity for the black market to expand their businesses. The farmer rather sold their rice to the black market with a higher return than selling to the participated private traders in the country. Hence, the government could not keep up national rice surplus into a level where it can have a constant stream of income disallowing government's total withdrawal from rice export.

On the other perspectivehand, the unstable price of rice and the loss of trading partner was due to Myanmar self-sufficiency policy and it led to major challenge for the country in international trade. Consequently, Myanmar rice export declined. to a significant amount. Because of the complicated licensing procedure, the export rice company and amount of rice export were inconsistent in each year after second liberalization. Two government organizations such as Myanmar Agricultural Produce Trading (MAPT) and Ministry of Agriculture and Irrigation (MOAI) no longer involve in rice export except allocating the existing stock. As a consequence, the military government decided to announce export quota every year, as the surpluses differences prove to be difficult to keep up with. In 2007, it reached 800,000 tons of rice, the highest quota since the second liberalization. Yet,

due to Typhoon Nargis, 2008 production severely affected and the export quota drop considerably. After trying to impose quota for another 2 years, the military government decided to abolish the quota system in 2011 as the country attempted to towards democratic transitioncy.

Although the second liberalization aimed to increase the profitability of production and to reduce the government intervention in the market it was not successful to open the rice exporting to private traders. More than 20 companies' efforts to take part in preparation for liberalization was totally diminished (Fujita et.al, 2009,).

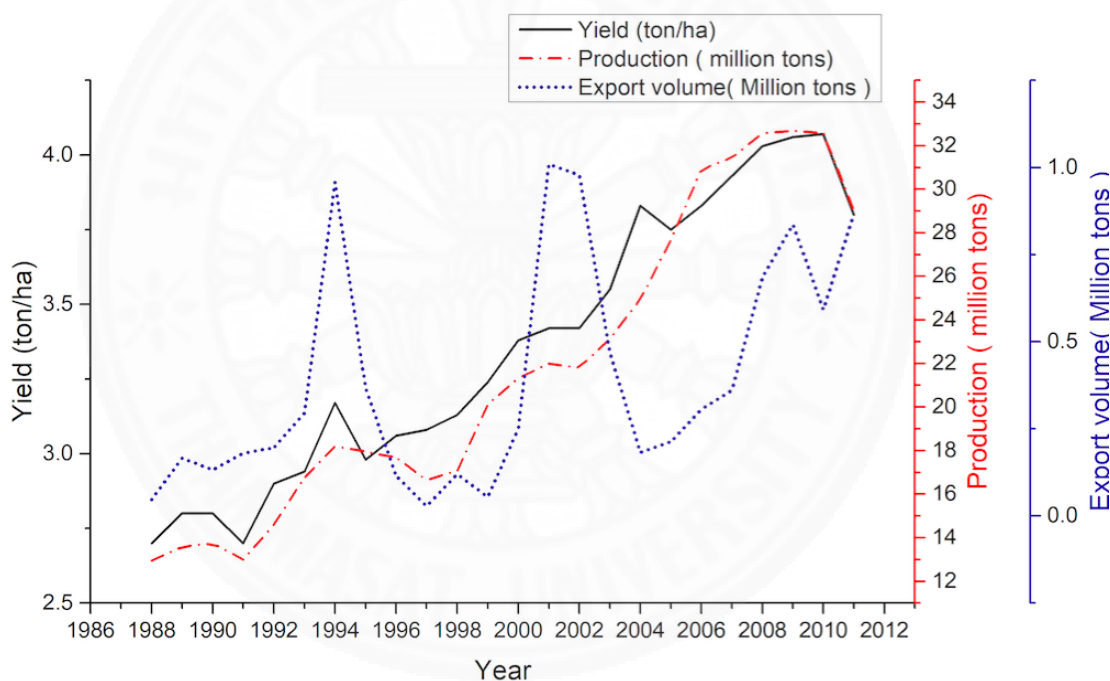


Figure 4.6 Rice Yield, Production and Export During Military Regime (1988-2011)

Source: IRRI (FAOSTATS)

4.4.2.6 Exchange Rate Policy

In terms of foreign exchange rate, Myanmar's exchange rate system was not unified and the currency of Myanmar Kyat was overvalued. Moreover, many parallel exchange rate operations such as "Custom Rate" and "Money Changer Rate" had negatively affected the export and imports of the

agricultural products and farm inputs (Tin Soe, 2004). Since 1974, Myanmar was under multiple exchange rate regime and the official exchange rate was at a fixed rate (6 kyat to a US dollar). The purpose of the official exchange rate was for the import of the raw materials for state owned enterprise. However, in 1988 the exchange system was liberalised and the unofficial exchange rate was depreciated and reached to 1400 to a US dollar in 2001. The multiple exchange rate system was terminated in 2012 and initiated into a single-rate regime (Odaka, 2016).

According to the economic working paper, during 2006 to 2011 the world rice price was generally strong, though the falling real exchange rate received by Myanmar farmers have led to 15% per capita output decline. It was mentioned that the exchange rate took a key role in the decline of output and incomes of farmers. The overvalued exchange rate system had damaged Myanmar agricultural sector. On the other hand, the low price of paddy led farmers to broadcast seed instead of transplanting or to use less fertilizer. As a consequence, this led to low yield and production. Summer rice output was likely to be significantly affected by the change in paddy prices. Farmers admitted that the decline in paddy production 70% to 50% was possibly due to the decline in paddy price. If the exchange rate reached to 700 kyats to the dollar there would be a possible decline in rice output, perhaps 10-15% unless world rice price in dollar rose to offset the overvalued kyat.¹¹ For many farmers, even the current exchange rate decreased the rice output (Dapice *et al.*, 2011). Such overvalued exchange rates encouraged black market exist, parallel to 'real' economy. Black market existed due to government intolerance in both policies and undertakings, which made the market as an ideal place to seek protection for better deals. Hence, as can be seen, the exchange rates for the industry continued to be overvalued throughout the years.

¹¹ When the world rice exports jump, there is a tendency in some rice exporting countries to restrict exports and keep local rice prices below world rice prices. This helps urban consumers and other rice buyers and hurts rice farmers and those whom they employ. Periodic export bands also hurt the reputation for reliability of the rice exporting nation

Overall, the exchange rate system in Myanmar had negative impact on the rice production of Myanmar and became one of the reasons which led to decline the rice export in Myanmar.

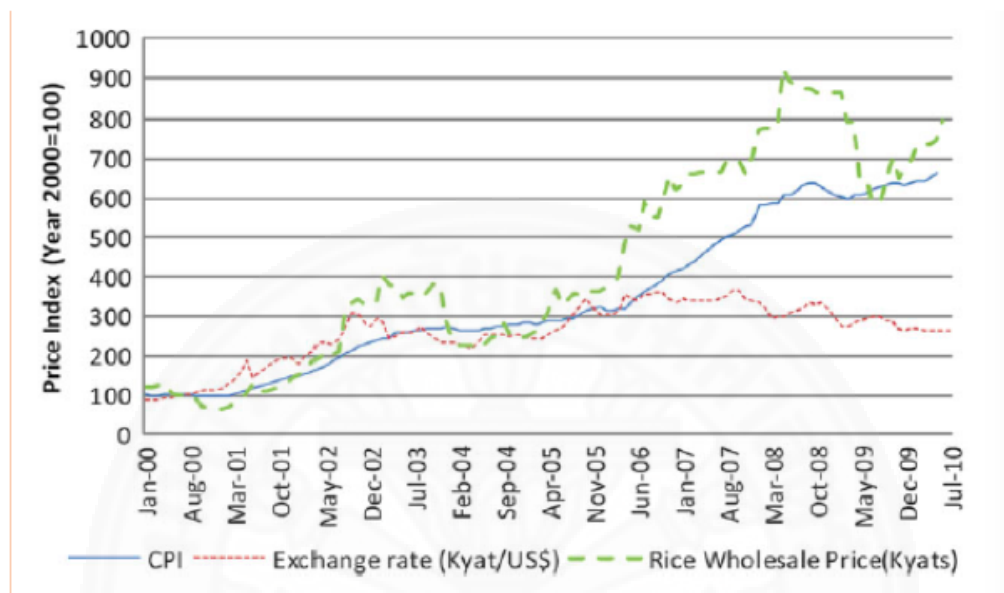


Figure 4.7 Exchange Rate and rice price from 2000 to 2010

Source: Institute of Developing Economies by Mr.Koji Kubo

After second liberalization, it can be seen that government still intervened in the rice marketing with restriction such as imposing tax on rice export and ban on the export in terms of the quota requirement. It is found that private sector was not allowed to do free trade under second liberalization due to government interest on the domestic rice price which had an impact on the political instability. This finally led to farmers' discouragement on producing high quality grains and negatively affect rice production. The amount of rice export during this period relatively increased compared to the beginning of the first liberalization. However the export volume was less than 1 million ton. During this period, multiple exchange rate system or the overvalued exchange rate system becomes one of the important factors which deteriorated the rice industry in Myanmar.

In summary, this chapter covered the impact of government agricultural policies on Myanmar Rice export. As can be observed, Myanmar rice export had changed its position from being the top rice exporter country in the global market to non-existent one while the neighboring countries took the large proportion in the world rice market. This happened due to consecutive mismanagement of the industry across different periods of time in Myanmar modern history. During the colonial days, due to the extensive labours and growing areas the rice export had reached a new record and the rice industry could enhance the economy of the country and become the main source of income to the country. However, after independence, the state started to monopolize in the rice market. Government intervention in the rice industry was more obvious and had significant impact on the rice export after socialist period (after 1960s) as the rice export declined substantially. In relation to low price of rice, restrictions on the crop choice and land tenure issues led to farmers to be less willing to increase production. Furthermore, throughout the period, credit system was not efficient enough for farmers to invest on farming as it created more debt for farmers. Constant overvalue of exchange rate had been proven to be fatal to the industry as it left a big gap between the official exchange rate system and private one, prompting to a favourable deal at the black market. Efforts to harmonise the exchange rate had been found to be difficult, as different parts of the society remain dependant of the market. In the end, a combination of government's growing assertiveness on the industry as well as bad policies resulted to a sharp decline of what was once a high potential rice industry in Myanmar.

CHAPTER 5

CONCLUSION

Although rice industry has a very important role in Myanmar's economic development, Myanmar government could not develop the rice industry to its full potential since Socialist period onwards. This study has shown that the main interest of government is to monopolize in the rice marketing in both domestic and export. Furthermore, it is quite clear that government prioritized on the rice production and domestic sufficiency rather than focusing on the farmer's interest to increase their livelihood. It was found that government intervention and monopoly takes place on rice marketing throughout the period and has brought this industry to its worst state. Myanmar's rice industry had reached the top position as number 1 rice exporter in the global market during colonial days. Nonetheless, since Socialist period, Myanmar government monopolized not only in decision making for rice marketing and but also involved in crop choice for farmers. All the rice policies that Myanmar government implemented throughout the successive regimes were mainly focused on rice production for their own political interest. Hence, it is reflective into the industry, whereby, it was use for the gain for those in power. The successive policies clearly lack of incentives for farmers to contribute in enhancing the rice production and it also had impact on rice export at the world market in terms of quality and quantity. At the same time, lacks of freedom and market mechanisms in the industry also hampered liberalizations efforts, as junta era system such as rationing system remained in place. As a consequence, the rice policies in Myanmar still needs to be improved in order to enhance the development of rice sector. But it is difficult to achieve this since Myanmar is politically driven with interest in keeping the country stable by keeping the price of the rice low in the domestic market. It is expected that it will be very difficult for Myanmar government to liberalize the rice policy and overcome these domestic challenges in future too.

Historically, with regard to the rice sector Myanmar has learned a lot of lessons, however, these lessons learned from the past are not being properly put in policies. It is the author sincere hope for such study contribute in future policy

making for the sector in search for the betterment of the industry as a whole. However, as of now, with the priority given to political transition happening in the country, it will take some time for such initiative to take place. And unfortunately, it can be foreseen that the rice sector would still be stagnant in years to come.



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