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Effects of Agricultural Policies on Rice Industry in Myanmar

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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

1. Introduction

Myanmar has been and still is a prominent agricultural 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. Later in the 19th Century, due to the intervention of British colonialists and educated Burmese, the industry takes 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 it's 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. 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 decline and no longer dominating the world's market. According to the FAO Stats, the volume of the rice export decreased from 3 million tons in 1940 to 0.86 million tons in 2011. 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 factors that failed the industry.

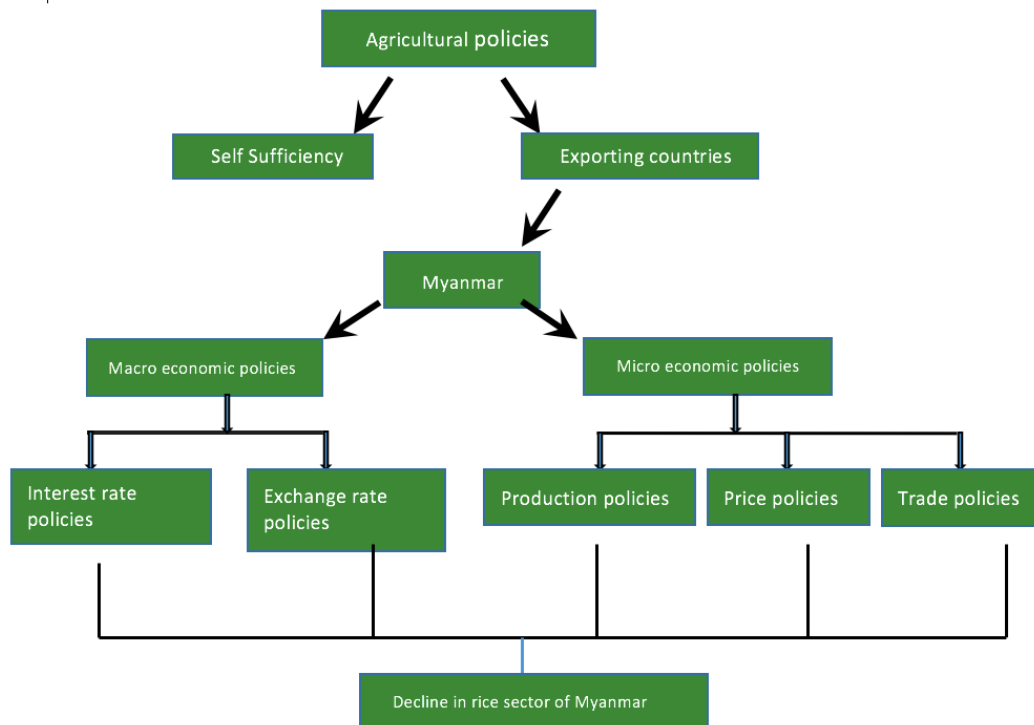
In Myanmar, policies play an important roles that affects the economy. Therefore, the agriculture policy is another important factor this study wants to focus on. As the country is in democratic transition, the civil government kick start plenty of economic reform and has pinpointed agricultural industry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

2. Research Objective and Research Question

The main purpose of this research is to look at the agricultural policies that turned Myanmar's rice sector from rice exporting country to that of self-sufficient rice production and consumption. In this perspective, the study trying to unveiled factors behind the fallout of the supposed to be the backbone of Myanmar's economy. Further down the road, the research use periodical

categorization to study the policies of each and how it impacts the production, trade and exchange rate. This lead to the question for the research i.e. what are the government policies that make Myanmar rice sector to decline?

3. Methodology



The main objective of this chapter is to introduce the methodology that are going to be applied in this paper in order to analyze which policies had lead the Myanmar rice industry has fallen.

In this study, qualitative method will be applied to investigate the policies of Myanmar relating to rice commodity. As Myanmar is exporting country and for this study, it will look both macro economic policies and micro economic policies which can have impact on the rice industry of Myanmar. Firstly, under macro economic this paper will study about the interest rate policies and exchange rate policies. Relating to interest rate policies, it will also examine about the credit system and how the interest rates are going in Myanmar and its effect or impact on 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. For the production policies, will look at the policies relating to production, such as input subsidies including fertilizers, farm machinery, pesticides and seed. Then, it will study how the production policies have impact for farm outputs and exports. Furthermore, under micro economic policies this paper will look at the price policies and will study 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, it will study about the trade system of Myanmar relating to 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 1880s to until 2011 in order to fulfil the objective of this study. Finally, this paper will analyze Myanmar policies which led Myanmar rice industry to fall in the global market.

4. Myanmar Rice Policies during Colonial days (1885-1947)

During the colonial days, the British government applied the “free enterprise rice policy” that encourage improvements to be made to the production and Myanmar rice cultivation (Young et al., 1998). The main purpose of this policy was to improve the revenue through export rice for British Administration. During this period, “laissez fair” competitive environment led government to intervene less in production and trade, besides upholding laws and order in the colony.

In order to fulfil the objectives of the policy, government improved the rice production through expansion of the rice areas. The agricultural activities at the Upper Burma expanded to the lower Burma and as a result the agricultural 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 hectares in 1885 to 4 million hectare in 1910 respectively. 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 million tons in 1830 to 8 million ton by 1932. It can be analyzed that the improvement of this was mainly due to the land expansion for the rice grown areas. The British government uplift the tax for 12 years on the newly cleared land. Under this policy, the rice production grew significantly from 2 million tons in 1885 to 6 million tons in 1910.

There is no report of subsidizing the fertilizer given to farmers during Colonial rules. 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 out that the homemade cattle dung was popular due to its availability everywhere (Win, 1991). As for credit, the loan was not popular among the farmers due to complicated process and many visits to colonial offices before receiving the loan and strict rules. Instead, moneylenders called “Chettyars” became popular due to ease of getting loans, low interest rates and flexible date of repayments. 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.

In terms of trade, four European companies such as Steel Brothers, Anglo Burma Rice Company, Ellerman’s Arakan Company and Bulloch Brothers have the largest mill in the country, while medium and small size mills usually owned by the Indians, Chinese and Burmese millers and the four companies control domestic trade and export activities. During British colonization, Myanmar exported about 60-70% of its production. Burmese rice were traded with much concentration to Europe, South America, West Africa and British Colonies such as Ceylon (Srilanka), Singapore and the rest goes to East Asian countries. By 1930, Burma managed to export approximately 2.1 million tons of rice, making the biggest rice exporting economy in the world.

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

The rice production improvement during this period was mainly due to the land expansion activities in lower Burma. British government also helped to improved the rice industry in Burma by allowing the industry to take off and introduced market elements to rice exports management. However, there was a problem during colonial days relating with the problems in social economy between the landlords and small farmers and it led to increase government intervention and socialist policies after independence days.

5. Rice Policies After independence (1948-1962)

Myanmar gained her independence from the British on 4th January 1948. After gaining independence, the two plans such as “Simla Plan” or “White paper Plan” and “Two Year Economic Plan” were prepared (Win, 1991). The first plan was drawn by the British Government which aimed to improve the rice production and to increase the rice export level to prewar. However, that plan was not implemented as Myanmar gained her independence in 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. During this period, rice still remained as an important export commodity of the economy and government emphasized on this industry as it contributed as main foreign exchange for the country’s economic development. Since independence government initiated “Food grain policy” in order to maintain the food sufficiency and tried to raise the foreign exchange by expanding the production and promoting rice export via implicit laws for food grains.

Government suddenly decided to nationalize this rice industry in order to ‘free the industry from foreign holdings and transferred the management of the rice industry into the hands of government’s agencies’. 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 with low price.

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 Myanmar people and to weaken the colonial land practices such as corvee and land lord. However, this proved to be not an easy task as Myanmar people exchanged their land titles for a mere lump sum of money and soon after returned 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 the macro management of the industry. The independence government allowed farmers to decide which crop to choose.

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 create micro credits for

farmers to reduce their debts. 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 fulfilled the requirement of agriculture credit where needed 200 million kyats and government loans only supported 25 percent of the requirement (Win ,1991). 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 can damage the quality of the soil.

After independence days, State Agricultural Market Board (SAMB) became the main organization that managed the rice industry on behalf of the government (Than, 2004). This board took the responsibilities of both procuring and exporting the rice from the European entrepreneurs and their subsidiaries. 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). There were also some interventions 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 domestic trade market. According to the rice grain policy, government started to lower the domestic good grain price in order to maintain the low cost living and supporting for socioeconomic stability (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.

For rice export, SAMB controlled the flow of rice in both domestic and global market as state representative organization. During this period, India, Indonesia, Sri Lanka and Japan were the main major buyers for Myanmar. However, the rice export had declined from 3 million tons in 1940 to 1.7 million tons in 1960 due to its low quality of rice and the major import countries became self-sufficient.

After Independence days, Myanmar started to use Kyats currency in the country and the officially exchange rate system during 1948 there 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 1961.¹ They 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.

After Independence, Myanmar government basically continued British legacy in the rice industry except the industry ran by Myanmar. During this period, the yield was increased 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 and the amount of export gradually decreased. The study found out that the lesson learnt from the Colonial days led the new government to intervene in the rice market. It is quite clear that mismanagement at the state level together with inappropriate policy initiated to lead the declining of rice industry in Myanmar.

6. Rice Policy during Socialist Period (1962-1988)

Government adopted the Burmese Way to Socialism in 1962. While General Ne Win took the administration, almost all businesses and industries including trade, forestry, mining and some infrastructure, such as hospitals and schools were nationalized. This mean, the rice industry also affected as the management of the industry strictly follow that of socialist ideals. The changing of government administration had influenced on the agricultural development. During this period, government set up three objectives for agriculture sector to fulfil the food sufficiency, providing raw materials for the industries and to enhance the export or surplus products in order to raise the capital investment within country (Win , 1991). This period marks state total controlled over all mode of production within the country and subsequently resulted in rapid decline of Myanmar's rice industry. During this period, government rice policy was to enhance rice production in order to fulfil for domestic food sufficiency and to raise the capital investment within country.

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 consequences, this led to implement a state-wide socialist program based land tenure-

¹ Statistics on the Burmese Economy, The 19th and 20th Centuries

ship during this time. On the other hand, the land were distributed to the poorest farmer with no capital to promote equity system which adversely affect on the productivity of rice.

Under Burmese ways of Socialism, the agricultural sectors, small businesses, assets and infrastructure such as distribution, transportation(river road) and external trade (some retail trade) were under close supervision by the State or cooperatives (BROWN, 2013) . This period marked state total control over all mode of production within the country and subsequently resulted in rapid decline of Myanmar's rice industry. The socialist regime expanded the agriculture program activities since 1963, the agriculture areas were classified into two categories; planned and non-planned areas or "Pillar Crop" policy (Soe, 2004) . 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 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. However, government could not supply enough to farmers and only 20% of the total required amount and for the rest farmers had to buy themselves at market price. The socialist government also expanded credits options which promoted the credits activities during that period. However, the cultivation cost keep increasing over time and the new lending system could cover only 11 percent of the total production during 1973 (Mya Than, 1980). On the other hand, for the non program areas, there were discriminately not allowed to access such incentives.

Under Socialist period, 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. Government set out on a policy of domestic self-sufficiency in 1963. This mean government only consider to sell rice from the surplus after meeting domestic demand. In terms of domestic distribution, one of the state Enterprise called "Public Trade Cooperation" took the responsibilities for it and UBAMB supported the requirement from that cooperation.

By 1964, the government fixed the domestic price all over the country. Since 1973, the sale of compulsory paddy or compulsory delivery quota system was implemented in domestic rice marketing system. Farmers had to sell their products to the government with fixed price which was usually below the market price and not allowed to sell directly to customers. Okamoto (2015), reported that the delivery quota for the farmers was approximately (1.5 to 2.1 tons per hectare). The distribution was under the management of the State through public shops or cooperatives 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 1980-1987 the procurement price was remained constant and below the free market price (Table 1). Consequently, this led to the farmer's discouragement to expand their production and yield (Thein, 2004).

Table 1 : Myanmar's Rice Price (In kyats/ton) 1962-1987

Year	Procurement		Export Price
	Government	Free Market	
1962	149	166	443
1965	149	147	484
1970	172	281	465
1975	431	679	1756
1980	472	1253	1506
1985	472	2521	1317
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)

The state own organization UBAMB monopolized the rice export activities. It is reported that, the inability to improve the productivity to fulfil both domestic and global demands, Myanmar rice export declined constantly from 1.7 million ton in 1962 to 0.047 million tons by 1988. The rice export decreased during this period can be accounted due to government procurement system where there was a wide gap between the procurement and market prices of paddy (Mya Than, 1992).

In term of exchange rate, it remained overvalued throughout this period. 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 1988 the end of the 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.

During Socialist period, although government changed few policies from the previous period such as enhancing the credit activities and distributing the fertilizer as incentives , the level of government intervention in rice industry in marketing process were changed considerably in both domestic and export market. Despite agriculture was not collectivized, government implemented the procurement system by extracting the agriculture surplus with low prices. The industry was deteriorated and reached to minimum amount of export at the end of socialist period although government tried to increase the production in order to fulfil their procurement and increase the rice export.

7. Rice Policies under Military Government² (1988-2011)

In order to keep the country stability, new generation of military generals launched a coup against their own socialist (military) party and established a junta called State Law and Order Restoration council (SLORC) in 1988 which was renamed as State Peace and Development Council in 1997. Almost immediately, the junta abandoned most of the socialist era policies and returned to the pre socialist order and policy. During this period, agricultural marketing reform proceeded in two steps. In 1987 the domestic marketing reform was initiated and in 1988, government implemented the export liberalization except rice.

a. First Liberalization (1988-2002)

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.” Besides,

² 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)

government removed the restrictions on the private exports of some agricultural products including green gram, black gram, maize and pigeon pea. However, rice was still remained under the control of the State association, Myanmar Agricultural Produce Trading (MAPT).

In order to enhance the rice production, government started to introduced the summer paddy program in 1992-93 especially in delta areas. Under this program, many farmers were induced to choose paddy in dry season with irrigation supports (Thein, 2004). As a consequence, this led to failure 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) . However, the program became stagnant due to high price of the inputs of diesel oil and chemical fertilizer after 1995. Furthermore, Myanmar government also implemented “Regional Rice Self-sufficiency Promotion Policy” since late 1990s, many areas were encouraged to grow rice in unsuitable land many 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. According to the policy, state had the absolute power for tillage right for farmers. The cropping pattern strategy was made by government according to the official policy. Farmers also aware the challenges if they cancelled or avoid from government mostly related to paddy. Thus farmers were ordered by government officials to grow the paddy according to the crop plan policy.

Government had struggled to keep up with the subsidies as during these days Official Development Assistance (ODA) especially from Japan was halted immediately and the price rose abruptly and government stopped to distribute the main inputs such as chemical fertilizers after 1988 Myanmar agricultural Development Bank supported farmers with seasonal crop loans but the loan amount was too small and less than 10 % of the 10% of the actual cost of cultivation (Thein, 2004). Thus, it was clear that farmers could not invest enough for increased paddy productivity.

The first liberalization eliminated the restriction on the private millers and the rice trading restriction in terms of the geographical areas. MAPT was responsible for marketing of rice paddy and distribution the rationed rice for the target group. For domestic trading, government did not

intervene the private sectors purchasing the commodities from farmers directly. Farmers had freedom to sell their rice directly to the customer after fulfilling the procurement demand from the government. On the one hand, government attempted to assure sufficient rice supply for them first through procurement policy. Thus, this mean rice trader had no absolute freedom in domestic trade. There were three situations that 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 fact, no restrictions on rice marketing around the country after first liberalization. Government set up some monthly procurement quota for the private sectors and this mean that private traders could not purchase the rice amount as they want. Government considered that the rice export to remote areas could raise domestic rice price. As for the second reason, government intervened in the 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. Especially, at the remote area of deficit regions, private traders were not allowed the sales during the procurement seasons. Thirdly, when the rice price increased in the domestic market, government usually began to check the rice traders' activities in the market at both rural and urban regions. As mentioned above, for the domestic rice trading was also not fully liberalized for the private traders.

Under socialist period, 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 the rice. During 1987, the discontent and reluctance peak made government fail to procure a sufficient supply of paddy at its low procurement price and led 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 benefit to consumers in terms of price and not quality and the recipient sold back to the traders in order to feed for livestock.

In terms of paddy procurement system, which had been abolished in 1987 was implemented again in 1989. Government decentralize the procurement system to the broker and keep the procurement price intact. However, volume of paddy procurement from government was

declined one third after liberalization, reduced from 1.5 tons per hector during socialist regime to 0.5 tons (Okamoto I. , 2005). Government still continued the 10% procurement from total production. However, the recipient found out that it was not efficient to secure the rationed rice due to the poor quality of grain and it can destroy the exporting of rice.

The military regime kept a tight control on rice price for political economy reasons. By taking control over rice industry and its process, the military took the control of the economy indirectly. Government continued the practice of keeping the price of rice low to ensure sufficient supply for the population as well as to keep the public officers and servants content. In order to do that, the government imposed a strict procurement system which forced farmers (around 70% of the population) to sell thirty to forty baskets per acre to government below market price and adopted rationing program throughout the country. As a consequence, farmers had just enough as they were prohibited from conducting private rice trading which led to a considerable decreased in production, productivity and quality of rice. The compulsory quota system was still retained until 2002. 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, basically, supply and demand status in the domestic market determined the rice price.

According the rice production policy in 1990s, there was rice surplus in the market and led to rice price collapsed happen in 2000-2001. In 2002 the rice price rose again a temporary phenomenon as farmers unwilling to sow paddy as the price collapsed and declined of rice production due to bad weather. Therefore, it happened government to start the deregulating of private rice exporting.

After the liberalization, government reconsider to keep the low rice price for general consumers at peak situation and the decision to allow the private sector in rice exporting make a comeback. It is significant that monopolizing on rice export was used as a tool to control the domestic rice price for general consumers who was excluded from the rice rationing system after first liberalization. Government priority on domestic rice security and rationed rice and only the rice left in government hands after rationing was released for export. By the time, the amount of rice export was relatively lower compared with the socialist period. Under the state monopoly, rice export declined from 42 percent of total export earning in 1980 to only 3.2 percent in 2002 (CSO,

2002). As the state marketing sector considered 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 became the main destinations for Myanmar rice export. Despite rice exported by private sector was not allowed some rice and other agricultural commodities were smuggled across the border areas, mainly to China (Young et.al., 1998). As a consequence, the illegal export led to problem in data collecting in Myanmar.

The first liberalization was only a limited liberalization from a total state control to market oriented in all sectors of the economy. Rice marketing during this period was sustained as the shrinking of the procurement system deficit when compared to the socialist period and the reduction quota obligation comparing with the socialist period. It can be said that the first liberalization is not successfully implemented as it turned back to production oriented strategy and low price policy in the domestic market in order to maintain the political unrest and for the social welfare of the urban people.

b. Second Liberalization (2003-2011)

By 2003 April, Myanmar government announced another liberalization of rice marketing after 16 years of establishment by socialist government. The main purpose of the second liberalization was to enhance the foreign exchange by increasing the rice export and to open the rice export sector to private sector for the export. Since 1990s government tried to improve the rice export sector by increasing the procurement from the farmers. As the plan was not so productive, government changed their strategies more focusing on the private sector and this led private rice millers to become the members of "Rice Trading Leading Committee". The main change under this liberalization for the industry is 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.

During this period, most of the land policies still remained the same as socialist period where state owned all land. However, there was no more for planned and non planned program which was initiated since socialist period. Furthermore, government continued to enforce the procured cropping plans which was implemented since 1990s with the help of the irrigation facilities for

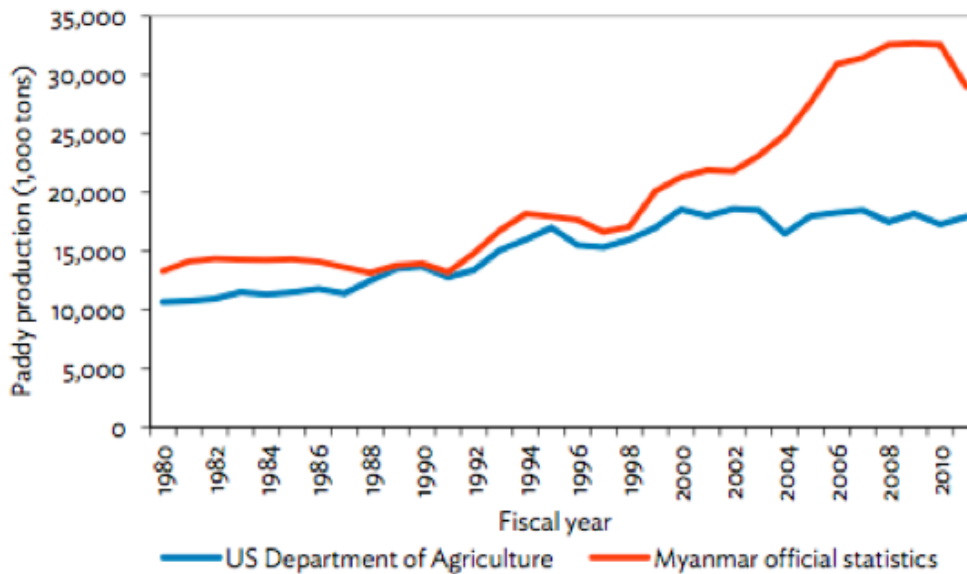
paddy. However, it was reported that second liberalization 80% of Myanmar cultivation land faced irrigation problems (Dapice, 2003)

Government attempted to withdraw the distribution of subsidies such as fertilizers and diesel for farmers. In fact, the official fertilizer price was kept low for 15 years since the beginning of the socialist period. Contributing of fertilizer became decreased significantly in 2005 due to difficulties in sufficient supply from the international aids and higher import price.

In terms of credits, the government official institution not offered to most of the farmers and only less than 3 percent of the bank loans reached out to agricultural sector. The main weakness of land system in Myanmar was farmers could not get loan from government by using as a collateral. Majority of the decision was taken by state owned, Myanmar Agricultural Development Bank (MADB). Contradictorily, the private banks were not allowed to lend for farming (FAO, 2004). 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 serious for farmer who has no major asset such as land 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 underdevelopment of institutional finances (including microfinance) led to underdevelopment of agriculture sector in Myanmar. The scholar (Turnell, 2009) criticized that Myanmar Rural areas had never experienced of “ beneficial “ development in financial market.

According to the official statistic from government office, the production increased from 23 million tons in 2003 since second liberalization to 29 millions tons in 2011 (FAO, 2011) However, according to figure (1), there was a difference gap between the two data sources (FAO) which works 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.

Figure 1: Annual Production of rice according to US Department of Agriculture



Source: US Department of Agriculture, Foreign Agricultural service.

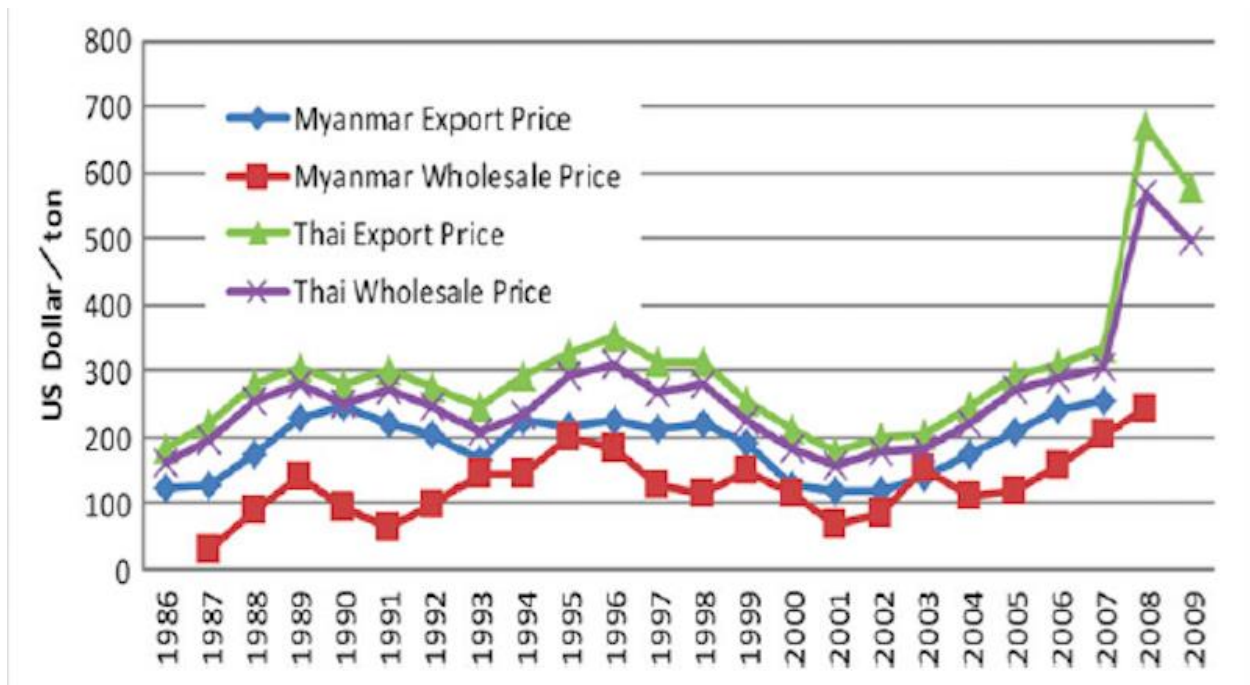
<http://apps.fas.usda.gov/psdonline/psdhome.aspx>; Food and Agriculture Organization of the United Nations, FAOSTAT. <http://faostat.fao.org>

US= United States

During Second liberalization, Myanmar could not highlight on the deregulation of the domestic rice market. 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, although it was completely liberalized during this period, government could not highlight anymore on the deregulation of domestic rice market after prolong controlled by government since socialist regime.

Under second liberalization, rice procurement system from farmers were abolished as government realized that the benefits was not sufficient to justify the cost of retaining it. However, the rice ration was still retained for the budget group and rice still needed to procure from commercial traders with market prices. As government could not afford to purchase at market price for long term and in 2004 the rationing system was ended. 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. In reality, the military government aimed to avoid the social unrest and this led government considered more on the production, the domestic low rice price rather than farmer's income and welfare. The scholars Okamoto & Fujita (2006) reported that 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 (Figure 1)

Figure 2: Rice Price in Myanmar and in the international market



Source : Prepared by Mr. Koji Kubo (Institute of Developing Economies, Chiba, Japan)

Note: The Myanmar export price was estimated from the statistics of export values and amounts by FAO (The quality of rice is unknown). Myanmar wholesale price was estimated by converting the Yangon wholesale market price (Emata 35% broken) to US dollars by the market exchange rates . The Bangkok FOB price of 100% Grade B and Bangkok wholesale market price (5% broken) was used for the Thai export price and wholesale market price, respectively)

In terms of export, the main purpose of the second liberalization was to allow the private sector in rice exporting and sharing the foreign exchange between government and private equally. Nonetheless, this plan was not implemented when the rice rationing system abolished in 2004. 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 under the quota set up by government where government took half of the foreign exchange earnings. During second liberalization, with the nonexistence of Myanmar Agricultural Producing Trading, there was no procurement system and this was noticeable as the end of government intervention in this industry. On the other hand, in order to compensate the loss of income from procuring and selling rice, government imposed 10% on the rice export.

In December 2007, government introduced the regional rice surplus structure and decide the rice export quotas and rice surplus regions. Moreover, the clear objective for the domestic and market price were set up in order to prevent consumer price problem due to rice export. Additionally, the shipping schedules for the rice export, number of rice export companies for different region to purchase the rice surpluses and destination countries also set up by the time. After second liberalization, rice export declined yearly and could export only 0.4-12 percent of its rice surplus when compared to 40-60 percent of the rice surplus in 1995. It could be the increasing number of smuggled rice in the black market (Lwin 2010). As government withdraw its control from the rice market, this led not only to encourage the official trading but also create the opportunity for the black market to develop. Due to the complicated licensing procedure, the number of rice export companies and rice export volume inconsistent after second liberalization. However, the government could not withdraw totally from the rice export as sometimes the national surplus could not meet up to a level where it can get constant income for country. Two government organizations such as Myanmar Agricultural Produce Trading (MAPT) and Ministry of Agriculture and Irrigation (MOAI) no longer involved in rice export except the allocating the existing supply.

On the contrary, military government announced the export quota for every year as it was difficult to keep with surpluses differences. By 2007, it reached 800,000 tons, which was the highest quota amount after 2003. When Nargis Typhoon hit in Myanmar 2008, and the export quota became decreased. After imposing quota for another two years government abolished quota system in 2011. Although the second liberalization aimed to improve the profitability of production and

lessen the government intervention in the market, it was not successful to delegate the rice exporting to private traders. More than 20 companies which had effort on rice liberalization was totally wasted (Okamoto I. , 2009)

For foreign exchange rate, Myanmar exchange rate system was not unified and the currency of Myanmar Kyat is overvalued. Moreover many parallel exchange rate operations such as “ Custom Rate”, “ Money Changer 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 importation of the raw materials for state own 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 terminate in 2012 and initiated into a single-rate regime (Odaka, 2016).

During 2006 to 2011 the world rice price was generally strong, though the falling real exchange rate received by Myanmar farmers have caused to the 15% per capita output decline. It was mentioned that the exchange rate took key role in declining output and incomes of farmers.³ 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, low yield and production resulted. Summer rice output is likely to be significantly affected by changed in paddy prices Farmers admitted that the decline of paddy production 50% to 70% was possibly due to the decline in paddy price. If the exchange rate reached to 700 kyats to the dollar there will be possible for decline of rice output , perhaps 10-15% unless world rice prices in dollar rose to offset the overvalued kyat.⁴ For many farmers, even the current exchange rate decreased the rice output (Dapice *et al.*, 2011). Such an overvalued exchange rates encouraged black market exist parallel to ‘real’ economy. Black market existed

⁴ 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

due to government intolerance in both policies and undertakings, which makes the market as a ideal place to seek protection for a better deals. Hence, as can be seen, the exchange rates for the industry continued to be overvalued through out of many years. Overall, the exchange rate system in Myanmar had negative impact on the rice production of Myanmar and one of the reasons which led to decline the rice export in Myanmar.

After second liberalization since 2003, It is quite clear that Myanmar government persisted to stick with the policy increasing rice production instead of considering giving incentives to farmers. This finally led to farmer discouragment on producing high quality grains and affect negatively on the rice production. The study found out that government still intervened in the rice marketing with restriction by imposing tax on rice export and limited the rice export in term of quota on the private sector. Although the state planned to fully deregulation of the economy, the rice industry remained closed in some particular parts. Hence, this period can be said Myanmar government still not ready yet to facing the new challenges and overcome the obstacles that derived from the liberalization of the economy. In stead of improving the strategies for the farmers, who are the main player to enhance the rice production, governments more prioritized on the stable rice price for the urban community.

8. Conclusion

Although rice industry has a very important role in Myanmar's economic development, Myanmar government could not develop the rice industry 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 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 lacks of incentive for farmers

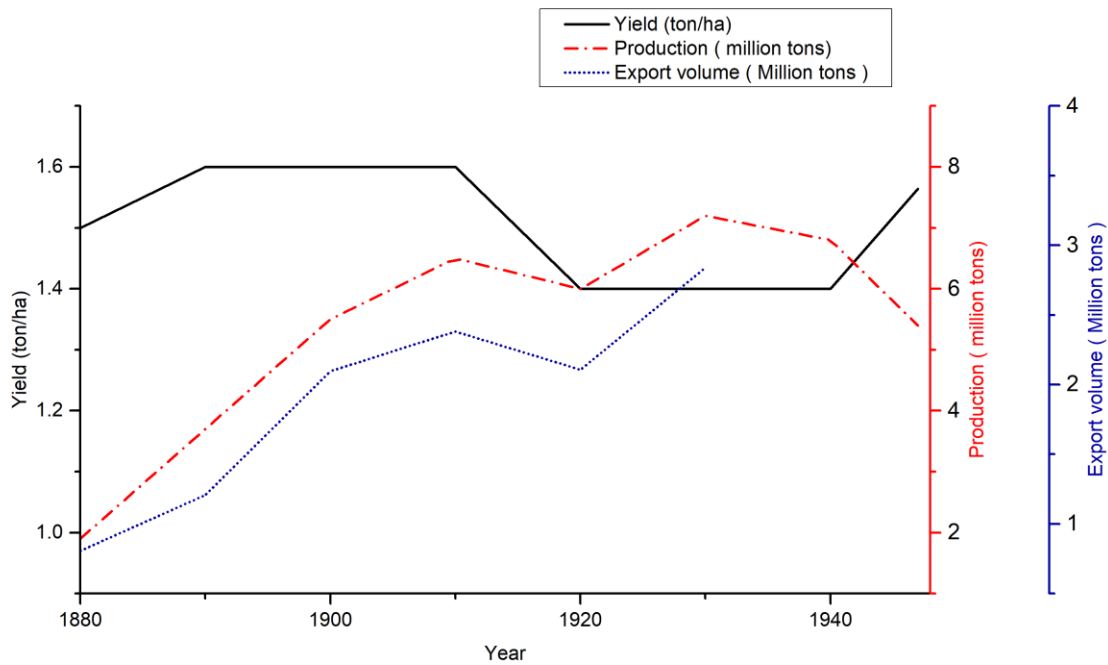
to contribute in enhancing the rice production and it also had impact on rice export at the world market in terms of quality and quantity. At the same time, lacks of freedom and market mechanisms in the industry also hampered liberalizations efforts, as junta era system such as rationing system remained 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 lesson, however, these lessons learned from the past are not being properly put in policies. And unfortunately, it can be foreseen that the rice sector would still be stagnant in years to come.

APPENDIX 1

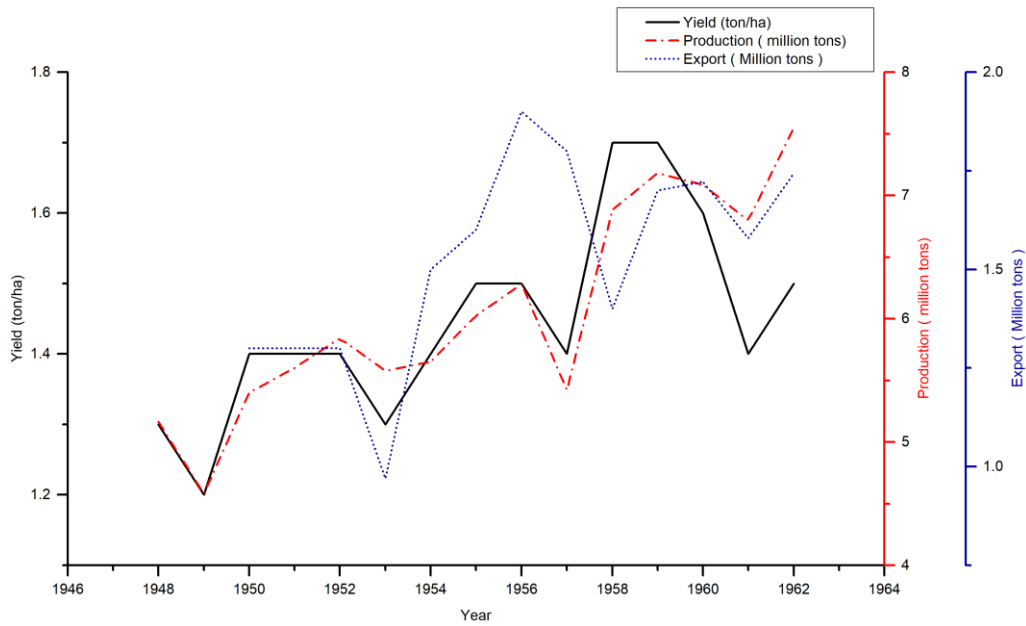
Figures for rice yield, production and export volume for Myanmar (1880-2011)

Figure 5. Rice Yield, Production and export volume during colonial days (1880-1947)



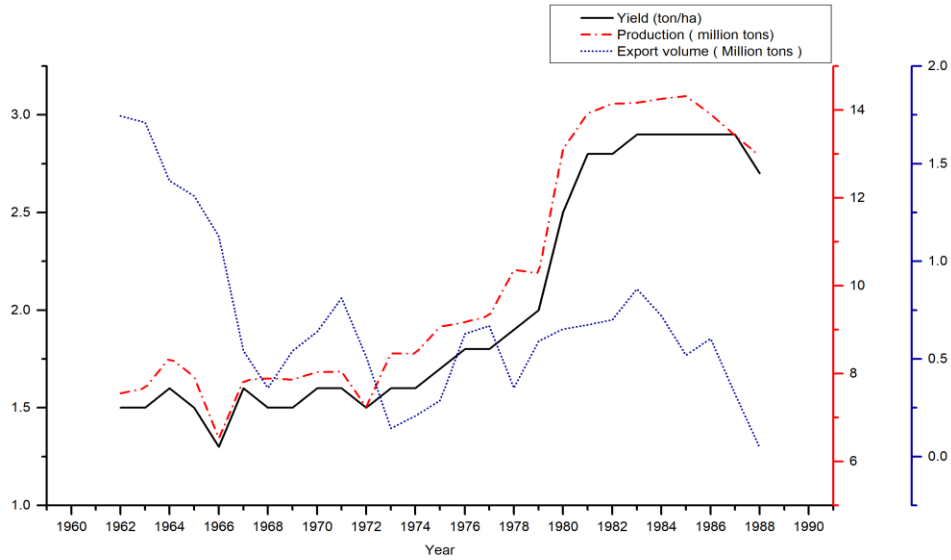
Source : U Khin Win (1991), A Century of Rice Improvement in Burma (International Rice Research Institute [IRRI] 1991)

Figure 6 :Rice Yield, Production and export after Independence Days (1948-1962)



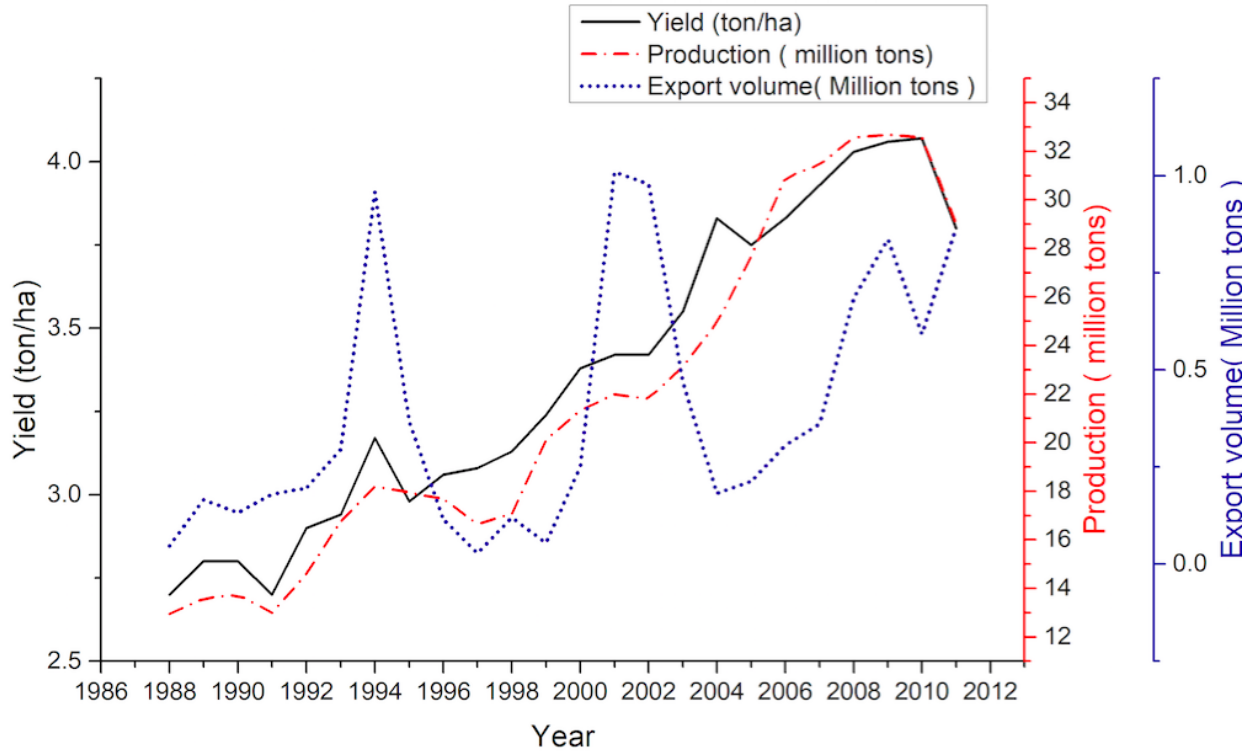
Source : U Khin Win (1991), A Century of Rice Improvement in Burma (International Rice Research Institute [IRRI] 1991)

Figure 7: Rice Yield, Production and export volume during Socialist Period
(1962-1988)



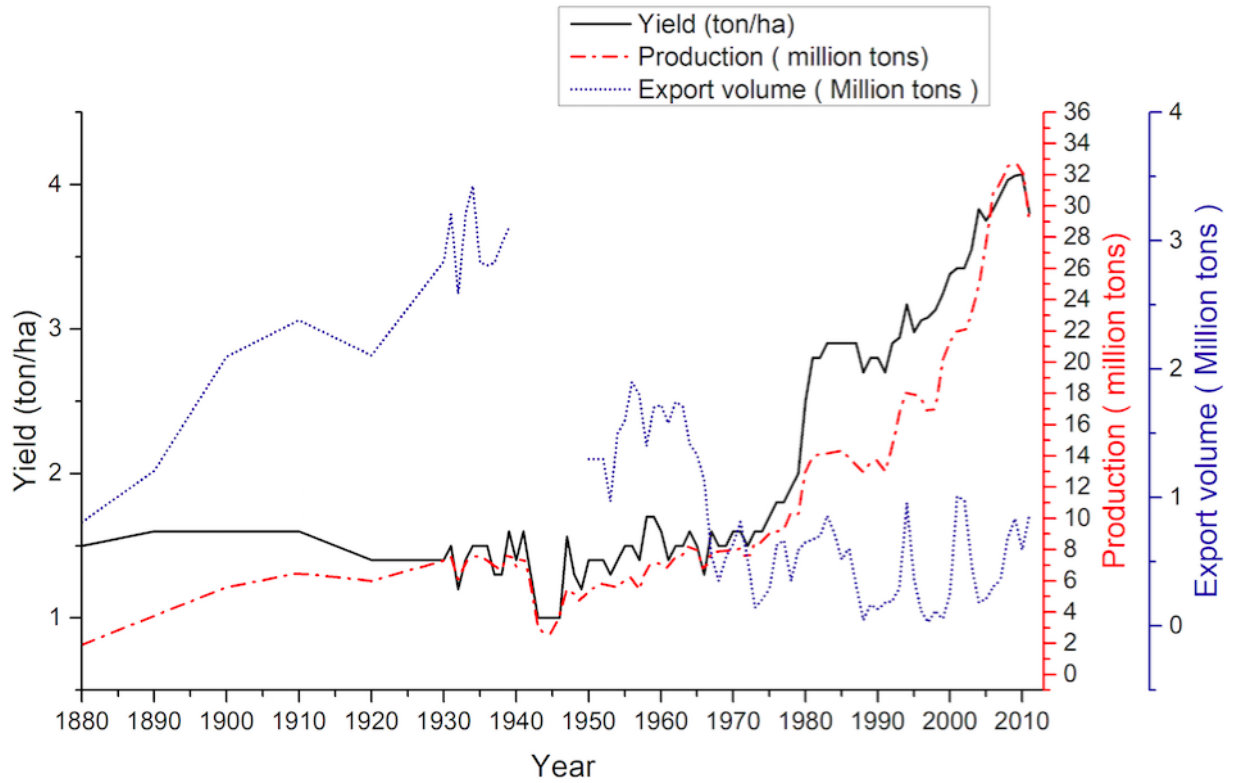
Source : U Khin Win (1991), A Century of Rice Improvement in Burma (International Rice Research Institute [IRRI] (1991)

Figure 8: Rice Yield, Production and Export During Military Regime (1988-2011)



Source : IRRI (FAOSTATS)

Figure 9 : Rice Yield, Production and export volume from 1880 to 2011



Source : Data from 1880 to 1991 U Khin Win (1991), A Century of Rice Improvement in Burma (International Rice Research Institute [IRRI] (1991). Data from 1991 to 2011 from IRRI (FAO STATS).

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