Sabah's Roles and Contributions towards fulfilling the nation's strategies in achieving 100% SSL in rice production

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1. INTRODUCTION

Agriculture has traditionally formed the backbone of Sabah's economy, employing approximately 33 percent of the population and contributing around 21 percent to gross domestic product (GDP). The sector remains dominated by oil palm, rubber, coconut and food crop inclusive of rice. The contribution of the food crops is very much lower compared to the industrial crops sector in term of the state's GDP.

The rice industry in Sabah is still under-developed compared to Peninsular Malaysia. The area planted with rice has gradually decreased since the last 10 years due to several factors. Furthermore, 99% of suitable agriculture land in Sabah is already used for industrial crop production, namely oil palm, rubber, coconut and cocoa. The remaining area is for other crops including 41,600 ha for paddy cultivation. Conversion of rice production areas to other uses such as industrial, commercial and housing development is inevitable near the urban areas.

Rice industry in Sabah has been given a special priority based on its importance as a strategic crop and a staple food commodity. Rice as a strategic crop is one of the highest subsidised and most regulated crop due to its social, political and economic importance in Sabah. The state government has always increased the effort and measures to boost domestic production aimed at raising the Self-Sufficiency Level (SSL) of rice in the state. The Ministry of Agriculture and Food Industry (MAFI) strives to increase the production and productivity of the agro-food sector especially rice to meet its self-sufficiency level or SSL. Since the closure of the Sabah Paddy Board in 1981, the Department of Agriculture Sabah has been entrusted with the duties of overseeing the development of the paddy industry in the state.

2. CURRENT STATUS OF RICE INDUSTRY IN SABAH

2.1 Rice and paddy production

Under the Sabah Agriculture Policy 2 (SAP2), the state government has set the target to achieve 60% SSL by the year 2010. However, the target of 60% SSL has not been achieved and had been declining from 40.97% in 2004 to 23.44% in 2013 due to various reasons.

For the past 10 years, the area under rice cultivation has been declining from 42,975 ha in 2004 to 38,614 ha in 2013. The total production of paddy in 2013 is at an all time low of 116,079 t (equivalent to 73,130 t of rice) from 38,614 ha of planted areas. The main districts contributing to the production of rice in Sabah are Kota Belud (27%), Kota Marudu (15%), Keningau (8%) and 16 other districts. Kota Belud, which is known as the rice bowl of Sabah is the biggest rice producing area with approximately 10,000 ha and produces more than 33,000 tonnes of paddy.

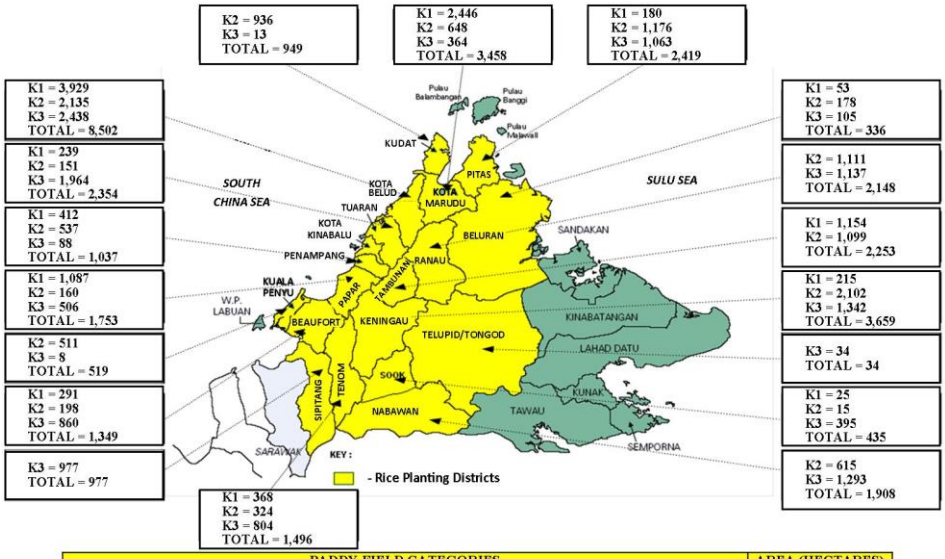
To meet the needs of Sabah's growing population, rice import kept on increasing from 147,681 tonnes worth of RM 144,788 million in 2004 to 209,642 tonnes or worth of RM 333,900 million in 2013.

Rice cultivated areas in Sabah are comprises of wetland and hill/dryland paddy areas. For the wetland rice cultivated areas are made up of three categories, namely K1, K2 and K3 as identified by the Department of Agriculture Sabah, with a total area of approximately 35,600 ha. Wetland rice growing areas classified as K1 are fully irrigated, where irrigation facilities and water are always available. K2 areas are equipped with irrigation facilities as in K1 but water is not always available and K3 areas are mainly dependent on rainfall and no irrigation facilities.

Rice farmers in Sabah practise single-cropping as well as double cropping. K1 areas complete with irrigation facilities and water is widely double-cropped and using improved or high yielding varieties. Most farmers in this area are using certified seeds

which are produced by the Department of Agriculture Sabah. The yield potential of these varieties is about 7t/ha with 130-140 days maturation period. Single-cropping is found in K2 and K3 areas where water is insufficient and is planted during wet season with local rice varieties with a long maturation period normally more than 150 days. In 2013, a total of 38,614 hectares were planted with rice with an average yield of 3.01 t/ha which is equivalent to 73,130 tonnes of rice produced for local consumption.

PADDY FIELD PHYSICAL AREA BY RICE PRODUCING DISTRICTS IN SABAH (HECTARES)



PADDY FIELD CATEGORIES	AREA (HECTARES)
K1 - DID irrigation facilities available. Paddy yield potential is 5.1 - 10 tonnes per hectare	10,400
K2 - DID irrigation facilities available, but insufficient supply . Paddy yield potential is 2.6 - 5.0 tonnes per hectare	11,898
K3 - Rainfed. Paddy yield potential is 0.5 - 2.5 tonnes per hectare	13,303
TOTAL	35,601

Figure 1: Paddy Production Area of K1, K2, and K3

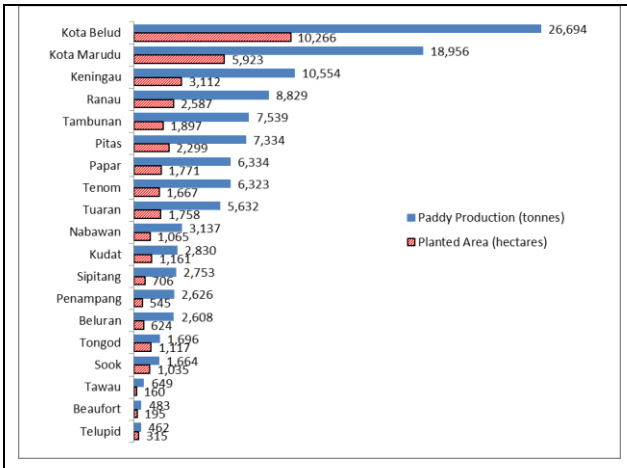


Figure 2 : Paddy Production and Planted Area by Districts, 2013

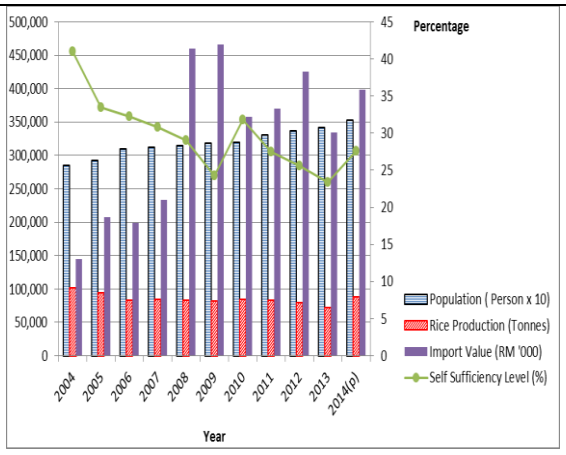


Figure 3: Population, Rice Production, Import Value and SSL

2.2 POLICIES ON RICE PRODUCTION IN SABAH

With the ending of the Third National Agriculture Policy (NAP3) in 2010, the National Agrofood Policy (NAP), 2011-2020 was formulated. The Policy is specific for the agrofood industry which is in line with the government's efforts to ensure adequate supply of safe food to the people and to improve contribution to national income and agriculture entrepreneurs. The National Agriculture Policy, the National Agrofood Policy and the Sabah Agricultural Policy (SAP) are been commonly referred to as guidelines in preparing state policies and strategies to increase rice production in Sabah. The objectives and strategies stated in the National Agriculture Policy (NAP) and the Sabah Agricultural Policy (SAP) over the years have being successfully adopted. The primary objectives of both the SAP2 and NAP3 in increasing local food production are to ensure that the local population is able to access a reliable supply of affordable food, especially the major food commodities.

2.2.1 Sabah Agriculture Policy 2 (SAP2)

The objective of SAP2 is "To maximize income through the optimal utilization of the resources in the sector so as to sustain and enhance their contribution to the state's economic development and growth."

The specific objectives of SAP2 are:

- To transform the smallholders into a more commercial and dynamic sector;
- To increase the efficiency and the productivity of the agriculture sector;
- To increase the level of domestic food production;
- To accelerate the development and growth of local agro-based downstream processing and manufacturing industries;
- To promote globally competitive agriculture;
- Strengthening essential economic foundation and basic support services; and
- To adopt sustainable development.

Under the SAP2, the state government has set the target to achieve 60% SSL in rice production by the year 2010. However the target of 60% SSL has not been achieved yet. Within the period of 10 years (1999-2010), SAP2 has accomplished some of the target and

parts of the important strategic direction will be continued in the SAP3 which will be ready by the end of 2015. The new of SAP3 will give more emphasis on increasing food security and income, strengthening productivity growth and competitiveness and also to ensure sustainability.

2.2.2 National Agriculture Policy 3 (NAP3)

The objective of NAP3 is "To maximize income through the optimal utilization of resources in the sector. This include maximizing agriculture's contribution to national income and export earning as well as maximizing income of producers.

The specific objectives of NAP3 are:

- To enhance food security;
- To increase productivity and competitiveness of the sector;
- To deepen linkages with other sectors;
- To create new resource of growth for the sector; and
- To conserve and utilize natural resources on a sustainable basis.

2.2.3 National Agro-Food Policy (2011-2020)

Under the National Agro-Food Policy, guidelines are provided and it emphasises on increasing domestic food production, optimizing the use of land resources, increasing agricultural income and encouraging active participation by the private sector in agriculture. Under the NAP, Strategies of Paddy and Rice Industry for 2011-2020 were strengthen as the following strategies:

- Increase productivity and quality of paddy and rice;
- Increase the effectiveness of mechanization and automation;
- Intensify the use of paddy by-products;
- Strengthen management of rice stockpile;
- Restructure incentives and subsidies for paddy and rice; and
- Strengthen the management of paddy and rice institution.

3 WILL MALAYSIA ACHIEVE 100% SELF-SUFFICIENCY IN RICE?

To what extent does Malaysia has to increase its rice production to meet the government's target for full self-sufficiency in rice? The government's decision to achieve 100% self-sufficiency in rice came about during the height of the world food crisis in June 2008, where Malaysia suddenly found itself to be incapable of guaranteeing sufficient rice supply for the nation in the following three months in mid 2008. Rice-exporting countries like Thailand, Vietnam, and India either banned or limited their rice exports during the food crisis. Thus, it was then realized that Malaysia had unexpectedly found no one from whom to buy rice. In other words, the food crisis exposed Malaysia's persistent and increasing food insecurity problem. Malaysia could achieve 100% SSL in rice if all areas in Malaysia improve their yield and productive areas. The state policy on rice is to continuously improve the SSL through increasing productivity and increasing the areas being planted. The target of achieving 60% SSL is an ongoing challenge for the state in the production of rice. Major issues relating to land use changes and problems with infrastructures have hampered achieving this target.

3.1 Government strategies to increase rice production in Sabah

Currently, the state government plays a leading role in the sector's development by providing various support services and infrastructure facilities. The lower production of rice remains a concern for the state, with production at approximately 30% SSL and it is only half of the target set by the state government of Sabah.

The Sabah state government put up measures by introducing and implementing policies and strategies to the increase its rice production to meet the government's target for full self-sufficiency in rice. The Sabah government and in particular the policy makers in the state view the 2008 food crisis as a 'wake-up' call towards self-sufficiency in food production and will walk toward achieving the SSL as set by Federal government. As a respond to this need, the state government initiated a study to identify an area of 10,000 ha in Kota Belud as a potential new granny area in Malaysia.

Some of the RM463.01 million allocated to agriculture in the 2013 budget was used to spearhead Sabah's efforts to increase its food supply, including a joint initiative between the state and Federal government to transform Kota Belud into a rice granary. A total of 8,503 ha have been allocated to the Kota Belud 'rice bowl' project, which is now being implemented following an agreement between the Ministry of Agriculture and Food Industry and the Kota Belud Farmers' Organisation. A range of innovative techniques was introduced under the initiative, including double-cropping and flood mitigation, together with a tertiary level water management system. (Anon, 2012). The existence of IADA Kota Belud which has been in operational since 2013, is one of the government strategies to increase the intensity and yield of rice covering the area of 8,500 ha which can contribute toward 47% of SSL for the state by 2020. IADA will take the role of LPP in implementing rice cultivation under EPP 11 in 2013.

3.2 Involvement of public and private sector

The rice development programme Sabah is undertaken by the Ministry of Agriculture and Food Industry (MAFI) with the Department of Agriculture (DoA) Sabah playing a role as "the Lead Agency". In the Tenth Malaysia Plan, the biggest rice development program is the implementation of Entry Point Project 11 (EPP11), where the Kota Belud Commercial Rice Project undertaken by MAFI as the project owner and Kota Belud Farmers Organization as appointed operator to implement the commercial cultivation. The EPP 11 under the umbrella of the broader National Key Economic Area initiative, which aims to increase the average production of rice grain for each farmer to 8.5 t/ha by 2020 was also been implemented in Kota Belud.

Both Federal government and Sabah state government provide inputs and outputs subsidies and incentives to rice farmers to encourage them to increase their rice production and income.

3.2.1 Department of Agriculture Sabah

The main role of DOA Sabah is to oversee the whole rice industry development in Sabah by providing the following services to improve the crop production as well as to increase the income of rice farmers :-

a. Subsidy programmes – To assist the paddy farmers in the land preparation stage of paddy cultivation by providing ploughing subsidy to eligible wetland paddy farmers at the rate of RM 494/ha and also fertilizer (DAP) to hill and dryland paddy farmers.

b. Extension services – To assist the paddy farmers in disseminating agricultural information and technologies through constant contact with farmers and implementation of paddy demonstration projects.

c. Research and Development – Research work is largely on the selection of paddy varieties with specific traits such as high yielding, aromatic and tolerance to pest and diseases especially to Brown Plant Hopper, Rice Tungro Virus Disease, Blast and bacterial leaf blight. This has resulted in the release of five varieties since the year of 2000. In addition, research on pest management, agronomic and cultural practices is also being done to improve the productivity of the paddy farmers. Research work on pest management especially on the control of Golden Apple Snail (GAS) using dried and ground plant parts of Yellow Furcraea (*Furcraea selloa* var. *marginata*) at a rate or 45 kg/ha was very successful in controlling GAS in Sabah. Advisory services are always on hand for farmers encountering problems.

d. Rice Seeds - The three rice seed processing centres at Kimanis, Timbang Menggaris and Tenom are responsible for the bulk production and processing of certified rice seed for the subsequent distribution to all paddy planting district.

3.2.2 Department of Irrigation and Drainage (DID)

The main roles of DID in relation to the rice development in the state is to provide infrastructures such as irrigation canal, farm roads, tractor crossing and drainage for

rice growing areas and also to operate and maintain irrigation schemes by supplying irrigation water to the paddy fields.

3.2.3 Federal Agency

a. Farmer Organisation Board (LPP)

LPP is responsible for providing subsidy and agricultural input comprising of pesticide (herbicide, fungicide & insecticide) and fertilizer (urea, organic compound and foliar) to eligible wetland and hill/dryland paddy farmers. Fertilizer and pesticides subsidies from the Federal government are channelled through PPK to be distributed to farmers subjected to a maximum of 10 hectares of land for each farmer entitlement.

b. BERNAS

BERNAS is entrusted by government to manage output subsidies, stockpiling of staple food (rice) as well as the sole importer of rice in Malaysia and also owns integrated rice mill throughout Malaysia.

4. ISSUES AND CONSTRAINTS

Sabah can achieve 60% SSL in rice production if all the paddy growing areas in Sabah can improve the yield and the productivity of the areas and also all these current issues and challenges to be address accordingly.

4.1 RESOURCES

4.1.1 Land

a. The rice production areas are decreasing over the past 10 years due to some of the rice production areas were abandon and land use conversion to other development. Most of the rice producing areas near the urban area is being converted to other uses such as industrial and housing development. An example is the sewerage treatment plant at Penampang paddy conservation area.
b. Areas meant for rice production was excised for road construction projects.

c. Approximately 87% of suitable and good rice producing areas have been planted with industrial crop especially oil palm and rubber.
d. The new areas for expansion for rice production remained very limited.
e. Existing paddy growing areas are not protected and physically zoned.
f. Small and fragmented paddy production units - Currently paddy production is mainly a small holder activity with an average production area of less than 1 ha. Land fragmentation due to family inheritance and subdivision leads to small and uneconomical sized fields. With a very small field, fragmented and scattered, it is difficult to extend any new technology and improve the farmers' knowledge, this will result in poor crop management.

4.1.2 Water

Water supply is the main factor affecting wetland paddy production. In Sabah only 25% of paddy producing areas are fully irrigated and have sufficient water supply. Meanwhile, 29% are irrigated with irregular water supply and the rest are fully dependent on rainfall. With the competition for water between domestic, industry and other agriculture activities, water shortage will be a major problem in the future.

4.1.3 Manpower

Traditional paddy cultivation is a very labour intensive operation. In Sabah, the current paddy planters are mostly the older generation. The younger generations are either not interested in paddy cultivation or they prefer jobs in urban areas. This is a major issue in the realisation towards achieving 60% SSL.

4.2 Low in productivity

The average yield of paddy in Sabah for the past 10 years is still low, fluctuating between 2.82 t/ha to 3.76 t/ha. The highest average yield was recorded in 2004 at 3.76 t/ha and the lowest in 2012. The yield for wetland rice is very much higher compared to the average yield of dryland rice which ranged from 2.99 - 4.08 t/ha and 1.15 – 2.76 t/ha respectively.

The low yield of rice is contributed by several factors such as use of low yielding varieties (traditional varieties), use of inferior seeds, inadequate pest management practices, nutrient management, inherent poor soil fertility and poor post harvest management. Low cropping intensity also contributed to low total rice production in Sabah.

Rice farmers in the K2, K3 and dryland areas are practising single cropping and still use traditional varieties which is low yielding (below 3 t/ha). They are using their own farm saved seeds. The high yielding varieties are mostly planted in the fully irrigated (K1) areas mainly in Kota Belud, Kota Marudu, Papar, Keningau and Tuaran districts where the farmers normally practice double cropping, adequate pest and diseases management and proper fertilizer management.

4.3 Inadequate infrastructure facilities

Areas categorizes as K3 are lacking of basic irrigation and drainage facilities while K2 are partially irrigated with inefficient water supply compare to K1 area.

4.4 Mechanization

Insufficient ploughing contractors and machineries and also frequent machine breakdown in Sabah caused the disruption of paddy planting schedule thus resulting in disruption of the paddy cultivation pattern. Failure in scheduling and synchronising the planting pattern has created an unhealthy environment where staggered planting cannot be avoided. This leads to a major pest and disease outbreak, inefficient water management and harvesting efficiency.

5. STRATEGIES

State government is committed to achieving 60% SSL with objective to guarantee the state food security and to help Malaysia to achieve 100% SSL through these strategies:

5.1 Zoning and land conversion policy

a. To address the land issues, there should be a policy of designating rice producing areas and no other activities or development shall be allowed in these areas. The state government shall declare and protect the existing rice areas by legal instrument such as gazetting the area. Rice producing areas shall not be converted to other uses.

b. The state government should consolidate the small size and fragmented paddy land to promote large scale production areas and to go for commercial scale cultivation which will encourage private sector going into rice production. As an example the approach of land consolidation and integrated management of the field implemented by IADA.

5.2 Increase of paddy production area

New areas for expansion of rice producing area are very limited. Most of the land suitable for rice cultivation has already been planted with oil palm and it is very appropriate for the state government to impose a new ruling requiring 10% of oil palm planted areas to be converted to food crop production with the priority given to rice industry in any oil palm re-planting exercise.

With the current practice and production areas, Sabah needs a minimum of 67,113 ha of new rice producing areas to achieve the target of 60% SSL by 2020. By improving the crop management practices, increasing planting intensity and increasing yield from 4.5 to 6 t/ha, the state government requires 24,574 ha to 13,121 ha of new land respectively to achieve the stated target. To support the Malaysian government strategies to achieve 100%, Sabah requires a total of 31,188 ha of new intensive rice production areas with an average yield of 6.0 tan per

hectare. The most suitable and contiguous area for rice development are located in the Dent Peninsular which are currently being planted with oil palm. It is strongly recommended that these areas are to be converted into rice producing areas during the replanting exercise.

5.3 Increasing Productivity and Quality of rice

a. To increase the productivity, it is important to increase the yield per unit area with the use of high yielding varieties, reduce post harvest losses, better utilization of resources, improved field management including pest and disease, nutrient management and the efficiency of water management. To date a total of 21 new varieties were introduced to farmers by the Department of Agriculture and the department is continually producing new high yielding varieties to meet the demand. Recommended varieties should be high yielding with a potential yield of more than 7 t/ha and should be resistant to the common rice pest and diseases in Sabah.
b. To improve the current yield from the existing areas, R&D on rice needs to be strengthened and more allocations should be channeled to finance the existing research activities in Sabah. At the moment, Agriculture Research Centre (ARC), Department of Agriculture Sabah in Tuaran is actively involved in rice research in Sabah since the 1950s.
c. Seeds – Use of high yielding and quality rice seeds should be imposed as a prerequisite for any subsidies applications.
d. Input and output subsidies should be maintained as the existing practices. More output incentive should be given to farmers with high production of rice exceeding 10 tan per ha.
e. To improve and upgrade the efficiency of the existing Irrigation and drainage infrastructure in K1 and K2 areas. A new efficient and reliable irrigation and drainage facilities should be developed in K3 areas.

5.4 Mechanization

The state government should provide a conducive environment for the service providers to actively involve in providing efficient services and sufficient machineries for land preparation and harvesting.

6. CONCLUSION

With the participation and cooperation of all parties in the rice development programme in Sabah, it is possible for the state to achieve the target of 60% SSL and expand more production areas to help Malaysia in achieving the target of 100% SSL by 2020.

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Table 1: Information of the rice industry in Sabah since 2004 – 2014

YEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014(p)
Planted Area	**42,975**	**40,117**	**38,498**	**41,443**	**37,448**	**40,353**	**42,496**	**43,331**	**44,902**	**38,614**	**41,463**
(i) Wetland Paddy	38,108	35,298	34,689	35,976	33,980	34,594	34,506	36,621	37,976	32,660	35,029
Main Season	27,334	25,231	25,755	25,804	22,694	22,460	23,439	25,391	27,119	22,809	22,199
Off-season	10,772	10,067	8,934	10,172	11,286	12,134	11,067	11,230	10,857	9,851	12,830
(ii) Dryland Paddy	*4,869*	*4,819*	*3,809*	*5,467*	*3,468*	*5,759*	*7,990*	*6,710*	*6,926*	*5,954*	*6,434*
Paddy Production (t)	**161,785**	**149,619**	**133,858**	**134,385**	**133,135**	**131,709**	**135,600**	**132,243**	**126,774**	**116,079**	**140,519**
(i) Wetland Paddy	153,405	144,063	126,910	123,303	125,821	117,698	116,632	116,915	113,632	102,525	122,748
Main Season	103,951	92,856	94,212	86,908	81,787	74,477	78,263	83,357	81,614	76,354	77,969
Off-season	49,454	51,207	32,698	36,395	44,034	43,221	38,369	33,558	32,018	26,171	44,779
(ii) Dryland Paddy	8,380	5,556	6,948	11,082	7,314	14,011	18,968	15,328	13,142	13,554	17,771
Average Yield (t/ha)	**3.76**	**3.73**	**3.48**	**3.24**	**3.56**	**3.26**	**3.19**	**3.05**	**2.82**	**3.01**	**3.39**
Main Season	3.80	3.68	3.66	3.37	3.60	3.32	3.339	3.28	3.01	3.35	3.51
Off-season	4.59	5.09	3.66	3.58	3.90	3.56	3.467	2.99	2.95	2.66	3.49
Wetland Paddy	4.03	4.08	3.66	3.43	3.70	3.40	3.38	3.19	2.99	3.14	3.5
Dryland Paddy	*1.72*	*1.15*	*1.82*	*2.03*	*2.11*	*2.43*	*2.37*	*2.29*	*1.90*	*2.28*	2.76
Rice Production (t)	**101,925**	**94,260**	**84,330**	**84,662**	**83,875**	**82,997**	**85,428**	**83,313**	**79,868**	**73,130**	**88,527**
(i) Wetland Paddy	96,645	90,759	79,953	77,681	79,267	74,150	73,478	73,656	71,588	64,591	77,331
(ii) Dryland Paddy	5,279	3,500	4,377	6,981	4,608	8,827	11,950	9,657	8,279	8,539	11,196
Import											
- Volume (t)	147,681	188,768	172,348	189,928	201,795	282,238	240,748	220,005	243,067	209,642	252,468
- Value (RM'000)	144,788	207,139	199,319	233,038	460,620	466,162	358,071	370,545	425,792	333,900	398,891
Export											
- Volume (t)	118	70	80	111	100	105	117	111	111	75	417
- Value (RM'000)	185	171	235	332	133	347	396	366	368	242	1,069
Population (persons)	**2,862,300**	**2,931,700**	**3,098,900**	**3,125,300**	**3,154,000**	**3,183,800**	**3,206,742**	**3,316,400**	**3,371,700**	**3,428,000**	**3,540,300**
Self Sufficiency Level (%)	**40.97**	**33.53**	**32.23**	**30.81**	**29.05**	**24.23**	**31.84**	**27.52**	**25.64**	**23.44**	**27.65**

Note : p - provisional
: ha – hectares
: t – tonnes
- Main Season paddy planted in August of the current year – Feb of the following year
- Off-season paddy planted in March of the current year

Table 2: Summary of Paddy Crop Subsidies and Incentives for Paddy Farmers

Department / Agencies	Function	Types of Assistance / Services	
		State Government	**Federal Government**
Department of Agriculture Sabah	• Research and Development • Agriculture Extension Services • Seed Production • Advisory services	i. Ploughing Subsidy at RM200/acre (RM494/ha) ii. DAP fertilizer 11kg/ha/season (hill/dryland rice) iii. "Skim Peminjaman Traktor Dua Roda" iv. "Skim Peminjaman Mesin Penuai Mini"	A. "Program Pengeluaran Padi RMK-10" i. "Projek Peningkatan Hasil ke Arah 10 tan Sehektar" ii. "Pemulihan Sawah Terbiar" iii. Promotion on field leveling technology B. "Program Dasar Jaminan Bekalan Makanan" i. Liming Program at 3tonne/ha/3 years
Lembaga Pertubuhan Peladang	• Input Subsidy (fertilizers and pesticide) • Tractor Services Provider		A. "Skim Bantuan Baja Kerajaan Persekutuan (SBBKP)" i. Urea 100kg/ha/season ii. Compound 250kg/ha/season B. "Skim Insentif Pengeluaran Padi (SIPP)" i. Ploughing RM100/ha/season ii. Organic fertilizer or Chemical pesticide RM140/ha/season
Department of Irrigation and Drainage Sabah	Irrigation and Drainage	Infrastructure Development (Irrigation, drainage, farm road, flood control gates, pump house)	Infrastructure Development (Irrigation, drainage, farm road, flood control gates, pump house)
BERNAS	• Ensure a fair and stable price of rice • Ensure sufficient supply of rice • Ensure quality and standard of rice maintained • Output Subsidy / Incentives		i. Paddy Price Purchase Subsidy at RM248.10/tonne ii. Increase Production Incentive at RM650/tonne iii. 10 tonne Bonus Incentive – RM650/tonne/ha iv. Paddy Processing / Miller Incentive
Ministry of Agriculture and Agro-based Industry	Enforcement		
Sabah Land Development Board	Paddy Development		

Table 3: Hectarage of Planted Area in Sabah, 2004 - 2013

DISTRICTS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kota Belud	10,143	8,087	8,500	10,788	9,926	9,247	10,450	11,292	13,176	10,266
Kota Marudu	6,328	6,331	6,360	6,247	6,196	5,390	5,906	5,081	5,796	5,923
Keningau	4,031	3,698	3,575	3,616	3,487	3,185	3,092	3,029	3,159	3,112
Tuaran	2,513	2,651	1,937	2,229	1,435	1,875	2,206	2,308	1,956	1,758
Pitas	3,141	2,605	3,516	3,106	4,123	3,665	3,718	3,282	4,208	2,299
Tenom	3,141	2,184	2,168	2,472	2,047	2,656	2,192	2,251	2,094	1,667
Tambunan	2,268	2,157	1,982	2,018	1,811	2,034	2,058	1,677	1,859	1,897
Kudat	1,306	1,109	1,421	1,095	934	1,419	1,960	1,993	1,608	1,161
Ranau	1,384	1,372	1,142	1,568	1,212	2,091	3,511	3,082	2,751	2,587
Papar	1,954	2,053	1,383	1,749	1,481	1,909	888	3,242	1,766	1,771
Beaufort	729	695	478	471	426	612	682	313	194	195
Sipitang	674	702	689	720	707	1,124	1,005	1,167	909	706
Penampang	508	470	710	942	485	536	507	516	504	545
Kuala Penyu	335	303	269	205	121	130	100	94	43	40
Kota Kinabalu	95	86	-	96	86	84	56	-	141	178
Beluran	-	-	91	509	330	1,288	338	353	542	624
Sook	-	-	-	931	243	342	508	889	686	1,035
Nabawan	-	-	-	981	561	878	1,163	860	820	1,065
Telupid/ Tongod	-	-	-	1,324	1,287	1,257	1,249	-	-	-
Telupid	-	-	-	-	-	-	-	405	337	315
Tongod	-	-	-	-	-	-	-	-	1,661	1,117
Tawau	-	-	-	-	-	-	-	-	-	160
Others	4,803	5,614	4,277	376	550	631	907	1,497	693	193
SABAH	**42,975**	**40,117**	**38,498**	**41,443**	**37,448**	**40,353**	**42,496**	**43,331**	**44,903**	**38,614**

Source : Department of Agriculture Sabah

Table 4: Paddy Production in Sabah, 2004 – 2013 (Metric Tonnes)

DISTRICTS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Kota Belud	41,479	34,959	32,154	36,615	35,198	27,056	33,065	31,865	32,807	26,694
Kota Marudu	27,864	29,594	24,903	20,346	22,143	18,673	20,604	13,179	13,649	18,956
Keningau	16,305	14,902	13,981	13,210	14,410	11,469	12,024	13,198	11,577	10,554
Tuaran	7,218	8,945	4,703	6,286	4,827	5,538	6,082	6,167	6,319	5,632
Pitas	9,167	7,146	8,768	6,720	11,602	7,326	10,797	9,739	11,433	7,334
Tenom	11,228	10,881	10,625	11,341	10,867	13,225	12,719	10,981	9,073	6,323
Tambunan	8,699	7,869	8,678	8,751	7,388	8,333	7,954	6,336	6,935	7,539
Kudat	3,909	2,524	4,825	1,952	2,486	3,267	2,289	2,785	3,593	2,830
Ranau	4,033	2,769	3,464	4,220	4,614	6,264	9,649	11,498	10,666	8,829
Papar	10,264	9,347	5,233	6,162	4,665	6,052	3,137	8,182	5,239	6,334
Beaufort	2,031	1,186	2,198	2,710	2,354	3,822	3,161	1,714	966	483
Sipitang	2,200	2,583	2,424	2,355	3,033	4,798	4,258	5,353	3,511	2,753
Penampang	3,174	2,966	2,850	5,224	2,471	2,765	1,611	2,365	2,050	2,626
Kuala Penyu	1,174	1,067	862	677	465	415	355	358	142	135
Kota Kinabalu	192	166	-	138	130	135	110	-	437	458
Beluran	-	-	415	1,709	1,174	5,521	803	850	1,540	2,608
Sook	-	-	-	1,622	494	671	1,134	532	1,752	1,664
Nabawan	-	-	-	3,228	1,937	2,525	2,625	3,183	3,239	3,137
Telupid/ Tongod	-	-	-	2,612	2,796	2,781	2,763	-	-	-
Telupid	-	-	-	-	-	-	-	293	614	462
Tongod	-	-	-	-	-	-	-	-	3,135	1,696
Tawau	-	-	-	-	-	-	-	-	-	649
Others	13,061	12,681	11,138	603	1,106	1,374	3,108	3,563	1,837	404
SABAH	**161,784**	**149,618**	**133,857**	**134,384**	**133,135**	**131,709**	**135,591**	**132,243**	**126,758**	**116,079**

Source : Department of Agriculture Sabah

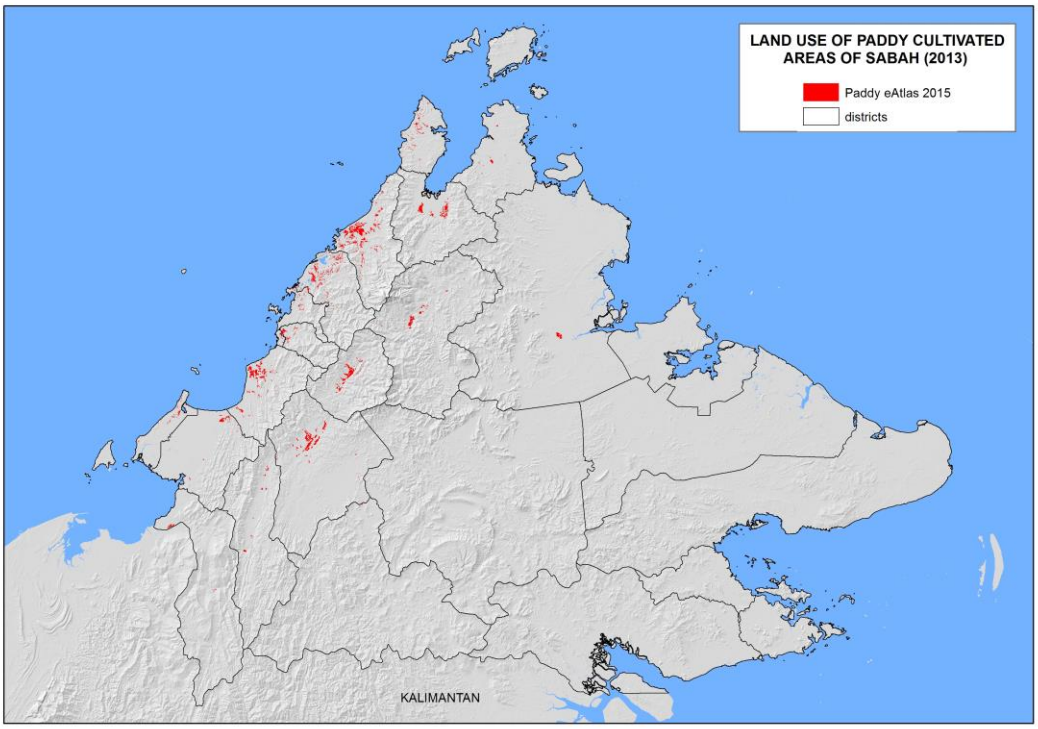

Figure 3: Land Use of Paddy Cultivated Areas of Sabah (2013)
Source : Department of Agriculture Sabah

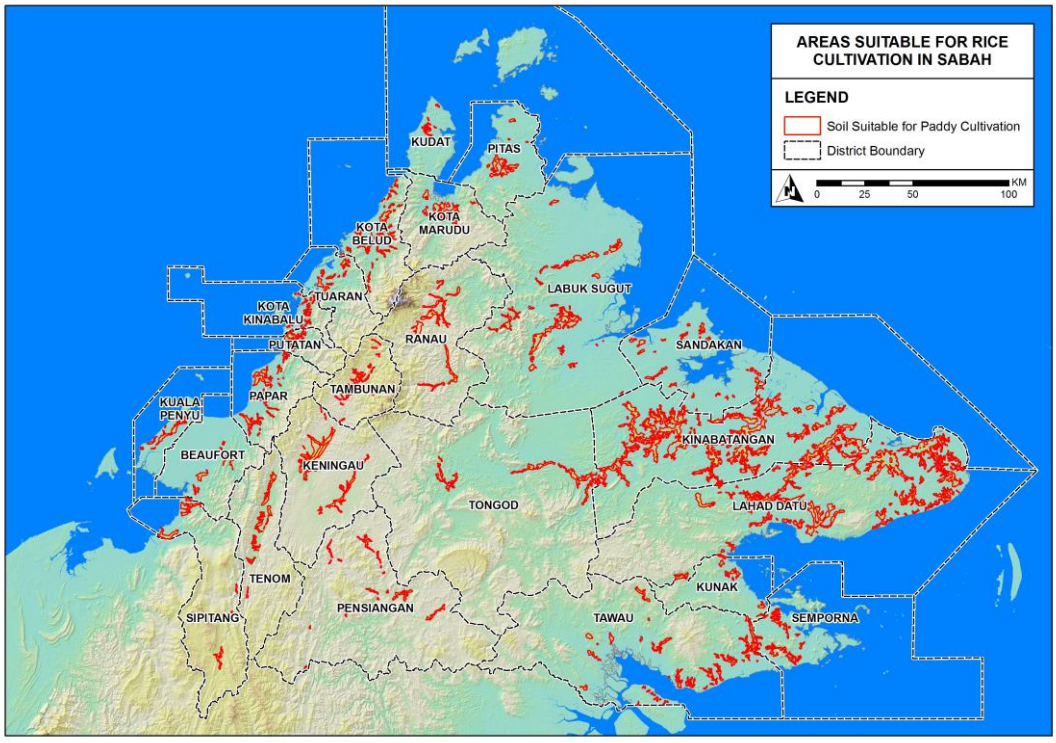

Figure 4: Area Suitable for Rice Cultivation in Sabah

Source : Department of Agriculture Sabah