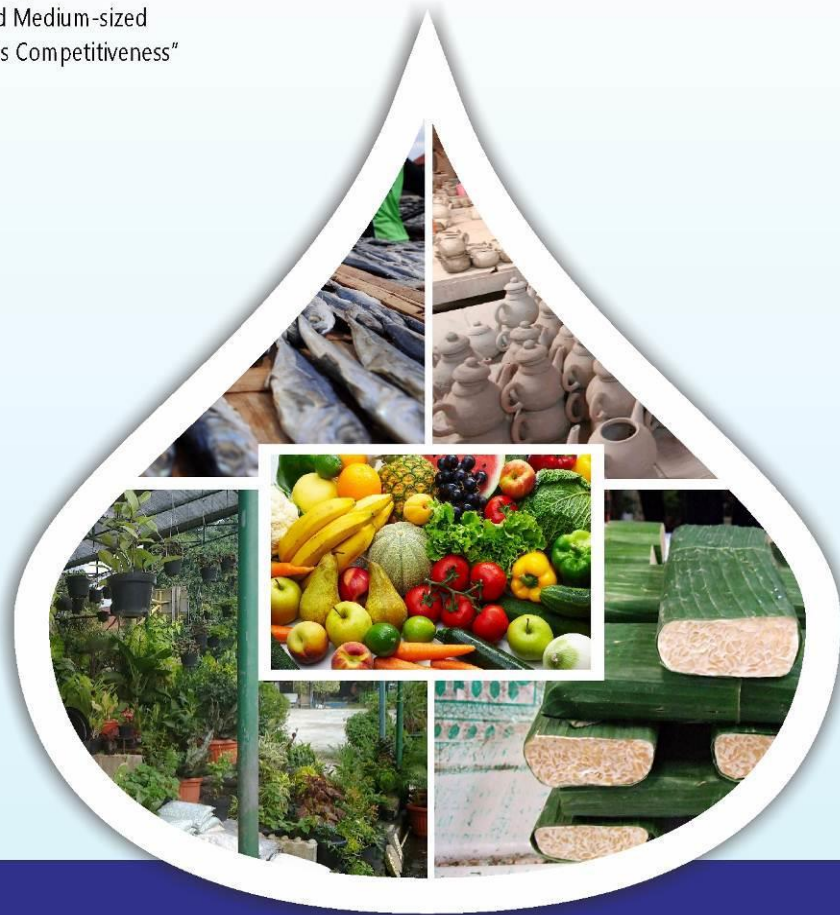




2016

"Small and Medium-sized
Enterprises Competitiveness"

ISBN 978-602-7577-70-1



PROCEEDING

INTERNATIONAL CONFERENCE

Agribusiness Development for Human Welfare



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Muhammadiyah
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Department of Agribusiness, Faculty of Agriculture
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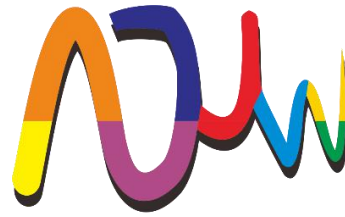
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AGRIBUSINESS
DEVELOPMENT FOR
HUMAN WELFARE

*“Small and Medium-sized
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Agribusiness Development
for Human Welfare

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EDITOR FOREWORD

The economic integrations by ASEAN certainly have given a major influence on Small and Medium-sized Enterprises (SMEs). Beside economic integration in the form of free trade area (FTA) that has been going on since the early 2000s, economic integration in the form of ASEAN Economic Community (AEC) has been ongoing since the beginning of 2016. Through this integration, SMEs have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market.

In order to explore ideas, concept, and innovations related to the competitiveness of SMEs, International Conference on Agribusiness Development for Human Welfare (ADHW 2016) was held in Yogyakarta on May 14, 2016. The conference organized by Department of Agribusiness Universitas Muhammadiyah Yogyakarta, in collaboration with Department of Agribusiness and Information System Universiti Putra Malaysia, Department of Agro-Industrial Technology Kasetsart University, Department of Agriculture Socio-Economics Universitas Gadjah Mada, Department of Agriculture Socio-Economics of Universitas Brawijaya, Indonesian Society of Agriculture Economics, Agribusiness Association of Indonesia. Hopefully proceedings of ADHW 2016 provide stimulus for increasing competitiveness of SMEs in ASEAN, especially in Indonesia.

Furthermore, we are grateful to Allah, the Sustainer of all word, who always makes it easy for our affairs. We would like to acknowledge with thanks to all the institution and individual who joined with resources and efforts in organizing the conference that resulted in the papers which are published in this proceeding. Special thanks to all authors and discussants who contributed with their intellectual capital and responded to our call papers. Thanks and acknowledgment are also due to all reviewers of the conference who helped in evaluating submitted papers; and to the members of the Organization Committee, who ensured smooth execution of the event.

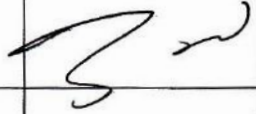
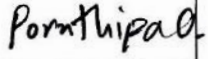


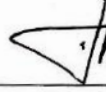

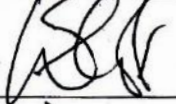
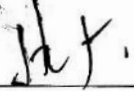
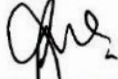

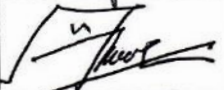
May 30, 2016

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PREFACE

Assalaamualaikum, Warahmatullaahi., Wabarakaatuh.
Dear Honorable Governor of Yogyakarta Special Province
Dear respectable Prof. Dr. Zainal Abidin Mohamed
Dear respectable Asist. Prof. Pornthipa Ongkunaruk
Dear respectable Rector of UMY Prof. Dr. Bambang Cipto, MA.
Dear all invited Guests, Speakers, and Participants of International seminar of ADHW 2016.

Alhamdulillah, all praise be to the Almighty God, so that we can be gathering here today at Muhammadiyah University of Yogyakarta in order to attend the Conference on Agribusiness Development for Human Welfare (ADHW) 2016.

Ladies and Gentlemen,

On behalf of the committee, I would like to say welcome to this International Conference on ADHW 2016 and thank you for attending our invitation.

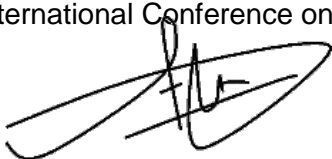
Especially, we are grateful to invited speakers, Prof. Zainal Abidin Mohamed and Asist. Prof. Pornthipa Ongkunaruk, for their willingness to share information and thoughts in this conference. As a bit report, that this conference has been attended by 85 speakers coming from five countries.

This conference entitled "Small and Medium-sized Enterprise Competitiveness". ASEAN Economic Community is the largest economic integration that is going to be implemented at the beginning of 2016 (December 31, 2015). Through this integration, SMEs will have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market. We expect that this seminar is capable of producing thoughts building SMEs within ASEAN, especially Indonesia, to face the free trade.

This event can be done by support and efforts from all sides. Therefore, I would like to say thank you to all committee members having worked hard to conduct this event. We, as the organizer committee, do apologize when there is a shortage in conducting this event.

Wassalamualaikum, Warahmatullaahi., Wabarakaatuh.

Chairman
International Conference on ADHW 2016



Dr. Aris Slamet Widodo, SP., MSc.

WORDS OF WELCOME

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, all praise be to Allah SWT, who has given us His blessings so that this International Seminar of Agribusiness Development for Human Welfare (ADHW) 2016 entitled "Small and Medium-sized Enterprises Competitiveness" can be conducted. This International Conference is held in cooperation among Agribusiness Study Program of Muhammadiyah University of Yogyakarta with Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), and Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB).

Countries of ASEAN members like Indonesia, Malaysia, and Thailand have more than 90% Small and Medium-sized Enterprises (SMEs). In general, SMEs play important role in economic developments such as in terms of employment, added value, improve foreign exchange, and economic growth. For Indonesia, the role of SMEs is limited to employment and added value, while the foreign exchange from SMEs is still low. According to the General Director of SMEs of Industrial Ministry, in 2013 the total SMEs being able to pass through export market is just under 5 percent. For that required many breakthrough and innovation so that the role of SMEs becomes real economic development, especially in Indonesia, and generally in ASEAN countries.

On behalf of Agribusiness Department of Universitas Muhammadiyah Yogyakarta, we would like to express our gratitude Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB) for all supports, sponsors, and all committee members having worked so hard that this International Conference can be conducted.

Hopefully, these synergies coming from various parties can provide contribution for developing SMEs in Indonesia and other ASEAN countries as well.

Wassalamu'alaikum warahmatullahi wabarakatuh

Head of Agribusiness Department
Universitas Muhammadiyah Yogyakarta



Ir. Eni Istiyanti, MP.



Gubernur

Daerah Istimewa Yogyakarta

Sambutan

KONFERENSI INTERNASIONAL

“AGRIBUSINESS DEVELOPMENT FOR HUMAN WELFARE”

Yogyakarta, 14 Mei 2016

Assalamu'alaikum Wr. Wb.

Salam sejahtera untuk kita semua.

Yang Saya hormati :

- Rektor Universitas Muhammadiyah Yogyakarta;
- Para Narasumber;
- Hadirin dan Para Peserta yang berbahagia,

Puji dan syukur marilah kita panjatkan kehadirat Allah SWT karena hanya atas limpahan rahmat serta karunia-Nya, kita dapat hadir pada kesempatan acara **Konferensi Internasional “Agribusiness Development For Human Welfare”** ini dalam keadaan sehat wal’afiat.

Pada kesempatan kali ini, secara ringkas Saya akan menyampaikan mengenai industri kecil menengah nasional yang menjadi tema pada pembukaan Seminar Internasional “Agribusiness Development For Human Welfare” ini.

Hadirin dan Saudara-saudara sekalian yang Saya hormati,

Berdasarkan data BPS, pertumbuhan industri pengolahan nonmigas pada tahun 2015 secara kumulatif sebesar 5,04%; lebih tinggi dari pertumbuhan ekonomi (PDB) pada periode yang sama sebesar 4,79%. Pada periode Januari-Desember 2015, nilai ekspor produk industri pengolahan nonmigas mencapai USD 106,63 Milyar, dan nilai impor mencapai USD 108,95 milyar, sehingga neraca perdagangan industri pengolahan nonmigas pada periode yang sama sebesar USD 2,32 milyar (neraca defisit).

Usaha pemerintah untuk memperkecil defisit di atas, salah satunya dengan cara memberdayakan Industri Kecil dan Menengah (IKM) yang merupakan bagian penting dalam perkembangan industri nasional. Sampai saat ini, Industri Kecil dan Menengah

telah berkontribusi sebesar 34,82% terhadap pertumbuhan industri pengolahan nonmigas secara keseluruhan.

Angka ini dapat tercapai karena dukungan lebih kurang 3,6 juta unit usaha, yang merupakan 90 persen dari total unit usaha insutri nasional. Jumlah unit usaha tersebut telah mampu menyerap tenaga kerja sebesar 8,7 juta orang, yang tentunya berdampak pada meningkatnya ekonomi nasional serta mengurangi kemiskinan.

Industri Kecil dan Menengah (IKM) memiliki peran yang strategis dalam perekonomian nasional. Hal ini sejalan dengan Visi Pemerintah dalam Rencana Pembangunan Nasional Jangka Menengah (RPJMN) 2015-2019 yaitu *“Terwujudnya Indonesia yang berdaulat, mandiri, dan berkepribadian berlandaskan gotong royong”*.

Untuk lebih meningkatkan peran tersebut, Penumbuhan dan Pengembangan Industri Kecil dan Menengah diarahkan untuk memiliki tujuan jangka menengah guna mewujudkan industri kecil dan industri menengah yang berdaya saing, berperan signifikan dalam penguatan struktur industri nasional, pengentasan kemiskinan dan perluasan kesempatan kerja, serta menghasilkan barang dan/atau jasa Industri untuk keperluan ekspor.

Hadirin dan Saudara-saudara sekalian,

Awal tahun ini, kita telah memasuki era Masyarakat Ekonomi ASEAN (MEA). Dengan demikian, perekonomian nasional akan langsung bersaing dengan para pelaku pasar di kawasan ASEAN. Produk dan jasa termasuk investasi negara-negara anggota telas bebas memasuki pasar di kawasan ASEAN.

Dalam rangka menghadapi hal tersebut, Pemerintah mengambil langkah-langkah strategis berupa peningkatan daya saing industri dan mendorong investasi di sektor industri; di mana peningkatan daya saing industri itu sendiri dilakukan melalui penguatan struktur industri dengan melengkapi struktur industri yang masih kosong serta menyiapkan strategi ofensif dan defensif dalam akses pasar.

Pemerintah telah melakukan Penguatan Sektor IKM dengan strategi ofensif dan defensifnya melalui beberapa program pelaksanaan, diantaranya antara lain: Penumbuhan Wirausaha Baru; Pengembangan IKM melalui Pengembangan Produk IKM serta Peningkatan Kemampuan Sentra dan UPT; Pemberian Bantuan Mesin dan Peralatan Produksi; Perluasan Akses Pasar melalui Promosi dan Pameran; Fasilitasi Pendaftaran Hak Kekayaan Intelektual; Fasilitasi Sertifikasi Mutu Produk dan Kemasan; serta Fasilitasi Pembiayaan melalui Skema Kredit Usaha Rakyat (KUR).

Saya berharap agar berbagai program-program pemerintah tersebut dapat didukung secara sinergis oleh seluruh komponen masyarakat. Untuk itu, Saya berpesan kepada Saudara-saudara sekalian agar semua program pemerintah dalam bidang

Industri, khususnya dalam program pemberdayaan Industri Kecil dan Menengah, didukung dengan sepenuh hati, agar dapat lebih bermanfaat bagi masyarakat dalam rangka pengembangan industri kecil menengah.

Hadirin dan Saudara-saudara sekalian yang Saya hormati,

Demikian beberapa hal yang dapat Saya sampaikan. Akhirnya dengan memohon ridho Allah Subhanahu Wata'ala, seraya mengucap "*Bismilahirrahmanirrahim*", **Konferensi Internasional "Agribusiness Development For Human Welfare"** dengan ini secara resmi Saya nyatakan dibuka. Semoga Allah SWT memberikan petunjuk, bimbingan, perlindungan dan kemudahan dalam setiap langkah dan upaya kita. Amien.

Sekian dan terima kasih.

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 14 Mei 2016
GUBERNUR
DAERAH ISTIMEWA YOGYAKARTA



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ANALYSIS OF COMPETITIVENESS ASEAN RICE TRADE IN THE ERA OF ASEAN ECONOMIC COMMUNITY

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ABSTRACT

Rice is an important commodity, because rice is the staple food and also a source of income for most people in the ASEAN region. This study aims to determine the import dependency and sufficiency of ASEAN rice potential, and to analysis the trend of export value and competitiveness of ASEAN rice trade, and the presentation before and after the implementation of ASEAN Economic Community (AEC). In this study used secondary data such as time series of data from the years 1996-2014. Then the data is forecasted for the year 2015-2020 with an exponential smoothing method. This data is divided into two periods: AEC before period (1996-2015) and AEC period (2016-2017). Although the AEC period starting in 2015, but the effect from the implementation of free trade AEC has a time lag. To determine the import dependency, sufficiency and competitiveness in the rice trade, then used IDR (Import Dependency Ratio), SSR (Self Sufficiency Ratio), RCA (Revealed Comparative Advantage), and AR (Acceleration Ratio). To determine AR in the rice trade, the use of trend analysis with multiple regression, least square method. The results of this study indicate that ASEAN rice production potential was able to exceed the sufficiency and net export, the import dependency is very low. The ASEAN rice has become a production base in the region of Southeast Asia and has the comparative advantages. In the period AEC predicted that the situation would be improved, due to an increase in production, the sufficiency and net export, the import dependency decrease. Nevertheless, ASEAN rice trade performance at the world level is estimated to be weakened. Only Thailand and Vietnam in the ASEAN region, which has highly competitiveness on the level of world rice trade.

Keywords: rice, dependency, sufficiency, trade, competitiveness

INTRODUCTION

Rice import-export activities in South East Asia is a very important activity, because economically, rice is the staple food and source of income or major expenditure communities in Southeast Asia, including Indonesia. Rice import-export policy will certainly be affected by various factors, one of which is an international agreement (Nugroho, et al., 2014).

The ASEAN Economic Community (AEC) is envisioned to be the realization of ASEAN economic integration by 2015. The establishment of the AEC 2015 is being pursued under pillars. The pillar envisions ASEAN as a single market and production base, within the region. The AEC aims to form an economic region that is highly competitive

(<http://www.ASEAN.org/communities/ASEAN-economic-community>).

Agricultural products which have high competitiveness will be able to exist and continue to grow so that exports of ASEAN countries including Indonesia to ASEAN itself will be bigger and will be able to encourage domestic production and increase farmers' income, employment, and foreign exchange. In contrast, agricultural products that lower their competitiveness would be threatened so that the existence of domestic production and farmers' income will decline (Hadi and Mardianto, 2004).

In general status of agricultural competitiveness in terms of comparative advantage (DRCR) and competitive advantage (PCR) indicates that the situation is quite alarming especially for

paddy (rice), soybeans, and sugarcane (sugar). DRCR and PCR of these commodities are approaching one (0.80 to 1.00), and even in some cases greater than one (Daryanto, 2010).

During the period 2010-2014, the value of SSR (Self Sufficiency Ratio) of commodity rice Indonesia is more than 95 percent, which means that most of the domestic rice requirement can be met by domestic production. Largest rice exporting countries are Thailand and Vietnam. The dominant importer of rice in Southeast Asia, namely Indonesia, Malaysia and the Philippines to meet the needs of domestic rice. The countries are penetrating the market of rice from Thailand and Vietnam (Kementerian Pertanian RI, 2015).

This study aims to determine the import dependency and sufficiency of ASEAN rice potential, and to analysis the trend of export value and competitiveness of ASEAN rice trade, and the presentation before and after the implementation of ASEAN Economic Community (AEC).

METHOD

The basic method used in this research is descriptive analysis. The purpose of descriptive research is to create a description, picture of systematic, factual and accurate information on the facts and the nature of the relationship between the phenomena studied (Nazir, 1989).

In this study used secondary data such as time series of data from the years 1996-2014. Then the data is forecasted for the year 2015-2020 with an exponential smoothing method. This data is divided into two periods: AEC before period (1996-2015) and AEC period (2016-2017). Although the AEC period starting in 2015, but the effect from the implementation of free trade AEC has a time lag.

To determine the import dependency, sufficiency and competitiveness in the rice trade, then used IDR (Import Dependency Ratio), SSR (Self Sufficiency Ratio), RCA (Revealed Comparative Advantage), and

AR (Acceleration Ratio). To determine AR in the rice trade, the use of trend analysis with multiple regression, least square method.

$$IDR_t = \frac{M_{tq}}{Q_t - NE_{tq}} \quad (1)$$

$$SSR_t = \frac{Q_t}{Q_t - NE_{tq}} \quad (2)$$

$$NE_{tq} = X_{tq} - M_{tq} \quad (3)$$

$$PI = \frac{t_a}{t_b} \quad (4)$$

$$RCA_t = \frac{X_{tviij} / X_{tvi}}{X_{twiiv} / X_{twi}} \quad (5)$$

$$AR_t = \frac{(TX_{tviij}) + 100}{(TX_{tviiv}) + 100} \quad (6)$$

$$TX_{tvi} = \beta_0 + \beta_1 T_b + \beta_2 T_a + \beta_3 D_a + e_t \quad (7)$$

$$TX_{tvi} = \beta_0 + \beta_1 T_b \quad (8)$$

$$TX_{tvi} = \beta_3 + \beta_2 T_a \quad (9)$$

Note:

Q = Production (tonnes)

E = Export

M = Import

i = Rice Commodity

jS = Country or ASEAN

w = World

q = Quantity (tonnes)

v = Value (US\$)

t = Period a and b

b = Before AEC (1996 – 2015)

a = AEC (2016 – 2020)

PI = Period Index

T = Trend (1996 – 2020)

T_b = Sub trend before AEC

T_a = Sub trend on AEC

β₀ = Intercept before AEC

β₁ = Trend coefficient before AEC

β₂ = Trend coefficient on AEC

β₃ = Intercept on AEC

e = Error

RESULT AND DISCUSSION

The ASEAN rice can become commodity for a single market and production base, within the region that is highly competitive. ASEAN rice potential in these studies was observed from the aspect of production, net export quantity, sufficiency became the indicator IDR and SSR. As for the competitiveness of the rice commodity is measured from the aspect of export value and an indicator trend RCA and AR.

Production, Net Export, Sufficiency

For 20 years (1996-2015), quantitatively, the potential for rice production and net exports in ASEAN, which became a top five ASEAN countries, in order contribution is Indonesia (33.0%; 36.6%), Vietnam (20.6%; 18.8%), Thailand (17.1%; 13.5%), Myanmar (14.6%; 15.2%) and the Philippines (8.3%; 9.6%) (graph on Figure 1). ASEAN rice domestic needs of each population is shown in per capita sufficiency which has reached 2.9 tons per year (1996-2015). The top five countries in ASEAN, respectively the per capita sufficiency of tons per year are Myanmar (0.51), Lao PDR (0.46), Cambodia (0.46), Vietnam (0.38) and Thailand (0.35) (graph line on Figure 1).

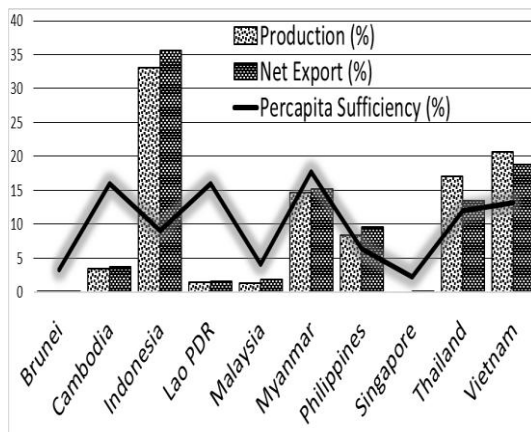


Figure 1. Contribution per Year of Production, Net Export and Per capita Sufficiency of ASEAN Rice, 1996-2015

The rice sufficiency is a requirement of rice production after cross-

border trade (net exports). ASEAN rice production capability of 177 million tons per year before the AEC has contributed in the world 27.25 percent, and will rise to a period of AEC by Period Index (PI) 1:38. The increase in production will increase is in line with the increase in the sufficiency to AEC period, as well as for PI.

Table 1. The ASEAN Rice of Production, Sufficiency and Net Export (million tonnes per year), Percentage of World Share, IDR and SSR, 1996-2020

ASEAN Item	Before AEC	AEC	Period Index
Production	177.21	244.93	1.38
World Share (%)	27.25	31.37	
Sufficiency	168.05	232.13	1.38
World Share (%)	25.88	29.83	
Net Export	9.17	12.79	1.40
IDR (%)	2.28	1.56	0.68
SSR (%)	105.45	105.51	1.00

Source: FAO, Analyzed, 2016

Domestic needs of ASEAN rice production shown in SSR, relatively unchanged for the period of AEC (PI 1). However, SSR has a very high percentage (105%). As a result, net exports of rice ASEAN 9:17 million tons per year will experience a larger increase in the period of AEC (PI 1.4). Thus, ASEAN rice sufficiency level does not depend on imported rice (IDR 2:28%) and will decrease in the period IDR AEC (IP 0.68).

Implicit in the rice-trading behavior of several nations is the view that food security can only be addressed through self-sufficiency production policies. Such an approach makes sense if the result is removing productivity gaps that do not require large public expenditures (i.e., subsidies and price supports) that distort the country's competitive advantage to produce and trade in other products. However, when the country achieves self-sufficiency at great cost to itself, there is the external cost that makes the global market thinner and prices more likely to be more volatile, and incurs losses for producers in countries that have a competitive advantage to supply rice on

the world market (Wailes and Chavez, 2012).

Competitiveness of ASEAN Rice Trade

The rice commodity is world merchandise of nonfuel. The trade of ASEAN rice examined in the competitiveness analysis is the export value (million US \$ per year) from rice and non-fuel merchandise in scope country's membership of ASEAN, ASEAN and the world. This analysis demonstrated the value of RCA, the coefficient of linear trend of multiple regression and acceleration ratio (AR).

Table 2. Top Five Countries in ASEAN of Revealed Comparative Advantaged (RCA) before and AEC Period, 1996-2020

No	Countries	RCA	RCA-AEC	PI
1	Viet Nam	42.10	9.90	0.24
2	Thailand	20.81	17.96	0.86
3	Myanmar	11.96	5.51	0.46
4	Cambodia	3.71	11.00	2.97
5	Brunei	0.19	0.14	0.72
	ASEAN	5.88	4.85	0.82

Source: FAO and World Bank, Analyzed, 2016

The top five countries in ASEAN, which has a comparative advantage of rice export in the world are Vietnam and Thailand. Vietnam has the highest RCA value (42.1), but heading into a period of AEC pronounced decrease with the RCA Index Period 0:24, had the lowest (Table 2). This is due to Vietnam to experience the trend of rice export value (123.66 million US \$ per year in Table 3), is under Thailand. Cambodia has increased to AEC RCA period were the highest with 2.97 Period Index, RCA to 11 in AEC Period (Table 2).

In terms of achieving rice self-sufficiency, island countries have a natural disadvantage. Less of their land is suited to growing rice, and as a result they cannot compete at the margin with the

mainland rice exporters. On the best land, operating with the best technology, farmers in different countries are relatively similar. But importing countries simply have less of that land than do the exporting countries (Dawe, 2013).

Table 3. Top five countries in ASEAN of Trend of Rice Export Value (million US\$ per year) before and AEC Period, 1996-2020

Rank	Countries	Trend	Trend-AEC	PI
1	Thailand	256.11*	394.57*	1.54
2	Vietnam	123.66*	239.19*	1.93
3	Cambodia	9.57*	14.59*	1.52
4	Myanmar	5.87*	3.69*	0.63
5	Singapore	4.05*	5.14*	1.27
	ASEAN	399.75*	657.60*	1.65

Source: FAO and World Bank, Analyzed, 2016

* Significant 99% ($\alpha = 0.01$)

Table 3 shows that the rice export value of ASEAN and all the countries experienced a positive trend that was significant at 99 percent confidence level. Then the condition of the trend for all countries will experience an increase in AEC period, except Myanmar (PI 0.63). Thailand has the highest trend in the AEC period, 394.57 million US \$ per year. While the lowest trend in the AEC, namely Myanmar period (3.69 million US \$ per year).

Table 4. Top five countries in ASEAN of Acceleration Ratio (AR) before and AEC Period, 1996-2020

Rank AR	Countries	AR	AR-AEC	Period Index
1	Thailand	0.223	0.216	0.97
2	Vietnam	0.108	0.131	1.22
3	Cambodia	0.008	0.008	0.96
4	Myanmar	0.005	0.002	0.40
5	Singapore	0.004	0.003	0.79
	ASEAN	0.348	0.360	1.04

Source: FAO and World Bank, Analyzed, 2016

Based on the RCA, the ASEAN rice have competitiveness in the world (RCA 5.88 in Table 2), but a decline in the competitiveness in the AEC period with Period Index 0.82. The ASEAN rice before AEC has a positive trend 399.75 million US \$ per year which is significant at the 99 percent confidence level. This trend is on the AEC period would have increased

(Period Index 1.65) amounted to 657.6 million US \$ per year (Table 3). However, based on the value of AR-ASEAN (AR 0.348 in Table 4), seen no indication of the performance weaknesses ASEAN rice export in the world. This AR has the Period Index approaching a value of one, which states there is no change to the AEC period.

Value AR (Acceleration Ratio) indicates whether a country can seize the overseas market, or a weak position in the export market or the domestic market. AR index is actually more look at the long-term dynamics (Nugroho, et al., 2014).

CONCLUSION

ASEAN rice production potential was able to exceed the sufficiency and net export, the import dependency is very low. The ASEAN rice has become a production base in the region of Southeast Asia and has the comparative advantages. In the period AEC predicted that the situation would be improved, due to an increase in production, the sufficiency and net export, the import dependency decrease. Nevertheless, ASEAN rice trade performance at the world level is estimated to be weakened. Only Thailand and Vietnam in the ASEAN region, which has highly competitiveness on the level of world rice trade.

Top five countries that are centers of production of rice ASEAN are Indonesia, Vietnam, Thailand, Myanmar and Philippines. The countries in AEC period must implement program to improve rice productivity is environmentally friendly and increase rice quality standards, so it will strengthen the competitiveness of the rice trade at the world level.

REFERENCES

Daryanto, A. 2010. Posisi Daya Saing Pertanian Indonesia dan Upaya Peningkatannya. *Prosiding Seminar Nasional Peningkatan Daya Saing Agribisnis Berorientasi Kesejahteraan Petani, 2010*. IPB International Convention Center, Bogor 14 Oktober 2009

Dawe, D. 2013. Geographic Determinants of Rice Self-Sufficiency in Southeast Asia. *ESA Working paper No. 13-03, June 2013*. Agricultural Development Economics Division, Food and Agriculture Organization of the United Nations

Hadi, Prajogo U dan Mardianto, S. 2004. Analisis Komparasi Daya Saing Produk Ekspor Pertanian antar Negara ASEAN dalam Era Perdagangan Bebas AFTA. *Jurnal Agro Ekonomi: Volume 22 No. 1, Mei 2004: 46-73*

Kementerian Pertanian RI. 2015. *Kinerja Perdagangan Komoditas Pertanian*. Volume 5 Nomor 1 Tahun 2015. Pusat Data dan Sistem Informasi Pertanian. Jakarta

Nazir, M. 1989. *Metode Penelitian*. Ghalia. Indonesia. Jakarta

Nugroho, A.D., Jamhari, dan Mulyo, J.H. 2014. Dampak AFTA terhadap Perdagangan Beras Indonesia. Dalam Buku, *Ekonomi Perberasan Indonesia: Perhepi*, 291-313

Wailes, Eric, J and Chavez, Eddie C. 2012. ASEAN and Global Rice Situation and Outlook. *ADB Sustainable Development Working Paper Series*. Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550 Metro Manila, Philippines.

DISCUSSION FROM PARALLEL SESSION

PAPER TITLE	Analysis of Competitiveness ASEAN Rice Trade in The Era of ASEAN Economic Community
AUTHOR	Mohammad Natsir, Sri Mardiyati
DISCUSSION	
QUESTION	- Only Thailand and Vietnam having competitive rice production. Indonesia high in consumption. How to develop Indonesia food security/ competitiveness in ASEAN area?
ANSWER	- Indonesia is contrast in high consumption, high production, but the competitiveness is low. - Indonesia position is still the best of rice production in ASEAN. Indonesia value of the trade is low/ not competitive/ high import of rice. (Production rice from Indonesia highest, but not competitive)
SUGGESTION	- In this paper should be discuss Indonesia position. - This paper is good. Indonesia position needs to be discussed and considered in ASEAN



Agribusiness Development
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2016

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ISBN 978-602-7577-70-1



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