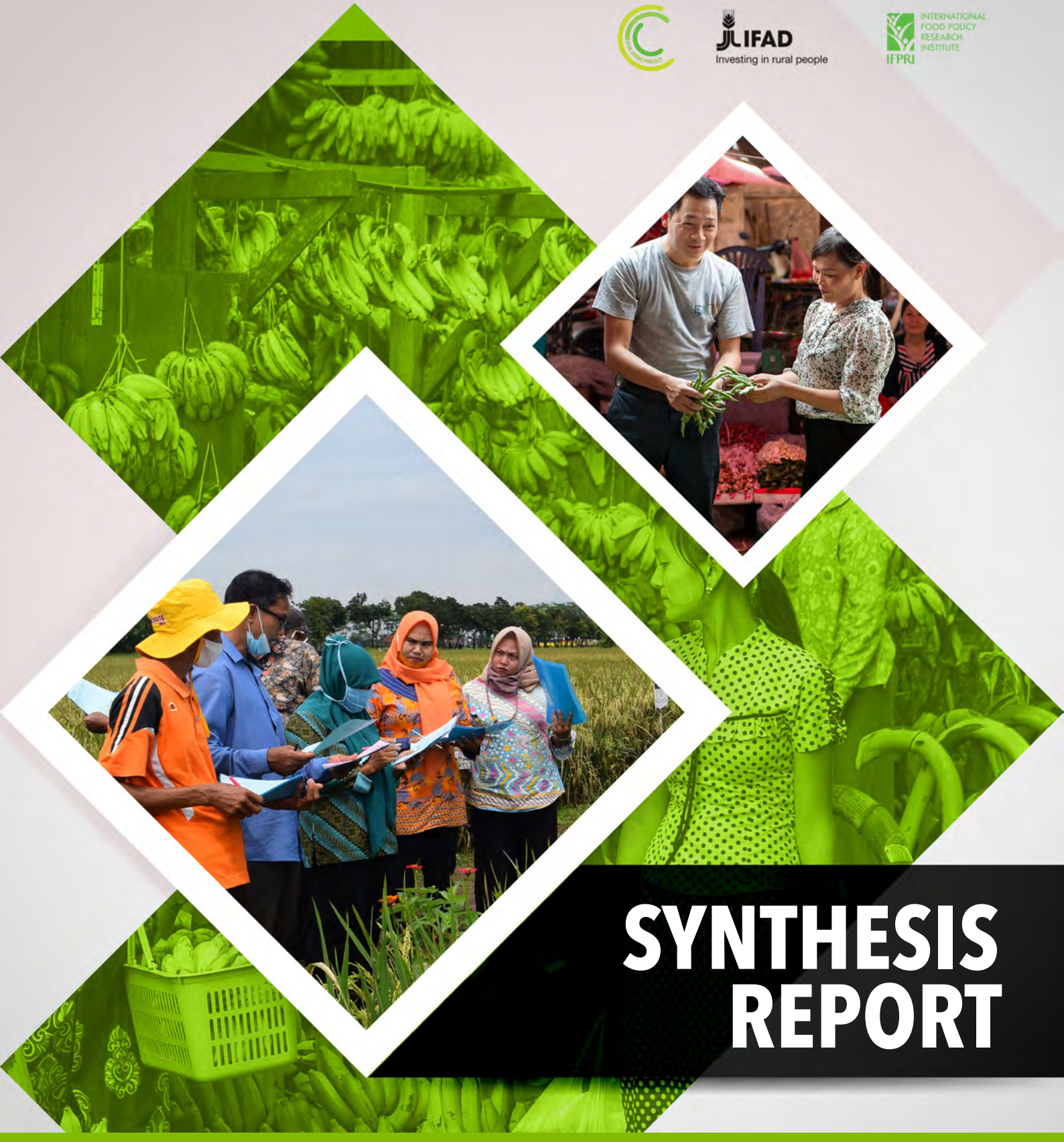

SYNTHESIS REPORT

Agricultural Transformation and Market Integration in the ASEAN Region: Responding to Food Security and Inclusiveness Concerns

Project duration: 2016-17 to 2020-22

Submitted by
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Abbreviations

ACO	Agriculture Commodity Outlook
AEC	ASEAN Economic Community
AFSRB	ASEAN Food Security Reserve Board
AFSIS	ASEAN Food Security Information System
AFTA	ASEAN Free Trade Area
AIFS	ASEAN Integrated Food Security
APTERR	ASEAN Plus Three Emergency Rice Reserve
ASEAN	Association of Southeast Asian Nations
ASEAN + 3	ASEAN + China, Japan, and the Republic of Korea
ASM	ASEAN Member States
ATMI	Agricultural Transformation and Market Integration
AVE	Ad-Valorem Equivalent
CBI	Count-Based Index
CLMVP	Cambodia, Lao PDR, Myanmar, Viet Nam, and The Philippines
CRTA	Committee on Regional Trade Agreements
EBA	Enabling the Business of Agriculture
ECA	Europe and Central Asia
ESCAP	UN Economic and Social Commission for Asia and the Pacific
EWI	Early Warning System
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GlobalGAP	Global Good Agricultural Practices
GSP	Generalized System of Preferences
GVC	Global Value Chain
HS	Harmonized Schedule
IFAD	International Fund for Agricultural Development
LAC	Latin America and Caribbean
MENA	Middle East and North Africa
MERCOSUR	Mercado Común del Sur (Southern Common Market)
MFN	Most Favoured Nation
Mn	Million
NA	North America
NTM	Non-Tariff Measures
OAP	Other Asia and Pacific
R&D	Research & Development
RCEP	Regional Comprehensive Economic Partnership
ROO	Rules of Origin
RoW	Rest of the World
RTA	Regional Trade Agreements

SA	South Asia
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SPS	Sanitary and Phytosanitary
SSA	Sub-Saharan Africa
TAO	Tariff Analysis Online
TBT	Technical Barriers to Trade
TE	Triennium Average Ending
TRQ	Tariff Rate Quotas
UAE	United Arab of Emirates
UK	United Kingdom
UN	United Nations
USA	United States of America
US$	United States Dollar
VBI	Value-Based Index
WDI	World Development Indicators
WITS	World Integrated Trade Solution
WTO	World Trade Organization

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1. Introduction

The Association of Southeast Asian Nations (ASEAN) is a regional grouping of Southeast Asian countries formed in 1967 by Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Brunei Darussalam joined this association in 1984. ASEAN expanded to 10 countries between 1995 and 1999 by extending memberships to Cambodia, Lao PDR, Myanmar, and Viet Nam. These 10 Southeast Asian countries entered into the trade agreement to ensure the free flow of goods, including agricultural products. Agreements related to services and investment were also signed to enhance economic cooperation and to develop an ASEAN Economic Community (AEC). The implementation of the ASEAN Free Trade Area (AFTA) in 2003 helped liberalize the intra-ASEAN agricultural trade, which grew steadily during the period under review. Further, the dynamics of intra-ASEAN trade show that after the food price crisis of 2007/2008, intra-ASEAN agricultural trade increased sharply, which reflects ASEAN's efforts to create a food security action plan aimed at improving sustainable food trade among ASEAN members.

1.1. Context

Structural transformation in Southeast Asia may pose challenges to the regions' food security and inclusive agricultural growth agenda. Integration of agricultural markets within ASEAN is high on the policy agenda given the current pressure on moving towards the establishment of a common market. An improvement in agricultural value chains' competitiveness is needed for realizing the gains from market integration for the ASEAN economies. Southeast Asia faces two fundamental challenges: First, regional and international supply chains of key crops are proliferating and primary producing countries fear losing sovereignty and missing opportunities for domestic industrialization and value addition. Second, national and rural food security strategies are often at odds with farm diversification away from traditional staple crops. Furthermore, with a growing urban population, food price shocks are perceived as a major threat by all countries in the region, possibly leading to sub-optimal policy choices in each individual country as well as collectively.

Yet, these concerns need reexamination given the rapid transformation of Asia's farming systems. Urban consumption patterns and the associated growing pressures for farm

mechanization, downstream industrialization, diversification of rural livelihoods, and adoption of more stringent food safety and quality standards require analyzing and understanding market integration in the context of a transforming food system.

To mitigate the risk of food price shocks and their impact on national food markets, ASEAN has established both the ASEAN Food Security Reserve Board (AFSRB) and the ASEAN Plus Three Emergency Rice Reserve (APTERR). The latter puts in place an emergency rice stock for ASEAN Member States plus the People's Republic of China, Japan, and the Republic of Korea. For maximum effectiveness, AFSRB could benefit from coordinating with national food stock policies and food reserves as well as the ASEAN Food Security Information System (AFSIS) with its ASEAN Agriculture Commodity Outlook (ACO) and Early Warning System (EWI).

Currently, progress in implementing the ASEAN Integrated Food Security (AIFS) Framework remains limited. If food security and the inclusion of smallholders are not aligned with ASEAN's competitiveness agenda in a credible way, improvements to regional agricultural and food markets will not be enough, leaving them open to sudden disruptions.

Against this backdrop, there is a strong need for evidence-based, empirical policy analysis and dialogue to foster cooperation among ASEAN Member States (AMS) and to help align and engage all stakeholders. This process of building confidence and enhancing cooperation will facilitate the development of national and regional roadmaps for food and agri-based value chains.

1.2. Objective

The ATMI program targets five AMS' – Cambodia, Lao PDR, Myanmar, Viet Nam, and the Philippines – and ASEAN in general, with the following objectives:

- To strengthen targeted AMS' capacity to develop policies and programs that help the smallholder farm sector adjust to changes in regional agricultural and food markets; and

- To promote cooperation in food security and agricultural development among all AMS by developing strategic programs and measures in the areas of Research and Development (R&D), food safety, and quality standards, as well as encouraging investments in food and agri-based industries.

Achieving these objectives can produce key outcomes such as improved smallholder competitiveness in the production of key food crops and reduced exposure of less-developed Member States to food security shocks. In addition, it would also help in achieving collaborative research and would help in developing capacity in the region.

1.3. Program components

The CLMVP (Cambodia, Lao PDR, Myanmar, Viet Nam, and The Philippines) program components consist of policy studies and expert workshops, high-level policy forums and roundtables, and technical assistance for planning and policy development. The working details of each component are as under:

Policy studies and expert workshops	• Analyze the structural transformation of selected regional food and agri-based value chains, focusing on smallholder competitiveness and the spatial, institutional, and technological reconfiguration resulting from growing market integration within ASEAN. • Assess current national sectoral strategies in targeted Member States in relation to the structural adjustment of the farm sector, smallholder competitiveness, and the establishment of systems to meet the requirements of the ASEAN common market. • Review regional cooperation initiatives in R&D aimed at improving practices in regional food and agri-based value chains, food safety, quality and environmental standards and the implications of such improvements for smallholder competitiveness, coordination of national food reserves and food security policies, and the agribusiness investment climate. • Review the five targeted AMS' national strategies, policies, and institutions, as well as those of ASEAN, for the development of major regional agri-based and food value chains that are inclusive of smallholders.
High-level policy forums and roundtables	• Support policy dialogues on the adoption of a shared vision and strategy on food security and agricultural competitiveness among Member States. • Develop a roadmap for future programs within ASEAN and at the national level with the objectives of improving smallholder competitiveness, increasing efficiency, adding value at the regional and national levels, and fostering food security.
Technical assistance for planning and policy development	• Assist on request ASEAN Sectoral/Technical Working Groups in the ASEAN Secretariat and technical agencies in targeted Member States in designing food security cooperation programs and regional strategies for value chain development through regulations, policies, preparation of multi-stakeholder roadmaps, and other planning tools. • Assist national agencies in targeted AMS in updating national policy and planning frameworks to enhance regional coherence in food security efforts and cooperation on value chain development.

1.4. Motivation

While much work has been done to assess the trade performance and competitiveness of the ASEAN region in general, the structural transformation of regional food and agri-based value chains, focusing on smallholder competitiveness resulting from growing market integration within and beyond ASEAN, is understudied. The motivation for studying targeted ASEAN member states such as CLMVP is due to their diverse farm sectors, smallholder competitiveness, food security policies, and the agribusiness investment climate.

To understand the diversification among the CLMVP countries, we may take the example of Myanmar and Viet Nam. The results indicate that Myanmar's exports have been dominated by intensive margins, which means Myanmar has been mainly exporting traditional products to traditional markets. One major implication of this high concentration of exports is that it makes Myanmar vulnerable to shocks. For instance, any policy change (say, an increase in import duty) or change in the level of production of dried legumes and beans in India can adversely affect Myanmar and its smallholder farmers with reduced export earnings.

Viet Nam's exports, on the other hand, have been dominated by an extensive margin and are diversified into various products such as rice to high value products like coffee and fisheries. Viet Nam has a high level of diversification across both products and markets, with high income countries like Indonesia, Malaysia, Singapore, Philippines as destination (except for fish fillets, pepper, and fruits with Thailand as top importer). Viet Nam is also the largest exporter of coffee, cashews, and black pepper due to increased production and exports by providing subsidies, value added tax exemptions, and marketing-related assistance. Further, a greater increase is expected in Viet Nam's exports due to part of the Regional Comprehensive Economic Partnership (RCEP) agreement.

This synthesis will provide evidence of how market integration within ASEAN can potentially help the small-scale rural producers of CLMVP to improve their livelihoods. The focus in this analysis is on agricultural trade and developed indicators to estimate "Trade Potential" and "Competition Indices" to assess the nature and extent of integration

within and beyond ASEAN countries. A higher trade potential with lower competition (value-based or count-based) implies an opportunity for agricultural producers to earn higher returns. Furthermore, to demonstrate the movement along the value chain, we present the dynamics of the unit values of exports of different agricultural products. Heterogeneity among the AMS has created scope for cross learning, with policy responses to shock being diverse and Global Value Chain (GVC) integration also differentiated.

1.5. Agricultural market integration: Intra-ASEAN and supra-regional

1.5.1. Intra-ASEAN

ASEAN is one of the highly integrated regions in the world, having an intra-regional agricultural trade share of around 22.5% in 2019. Elements of the regional integration dependency can be observed in Figure 1.1, with a sustained increase in intra-regional agricultural trade within the region. Indonesia, Malaysia, Singapore, and Thailand comprise the major shares of total agricultural exports and imports in the region. The CLMVP countries' agricultural export shares in the region remained low while import share has significantly increased from 28.9% in 2005 to 46.2% in 2019 (Figure 1.2 and Figure 1.3).

In fact, the export share has decreased for high-income countries like Malaysia (23.5% in 2005 to 18.2% in 2019) and Singapore (15.3% in 2005 to 13.3% in 2019). The share of CLMVP countries' exports in the intra-regional trade was low, except for Viet Nam. For Viet Nam, agricultural import shares have doubled (7% in 2005 to 14% in 2019) and exports have increased (11.5% in 2005 to 12.1% in 2019). Also, the agricultural import share of the Philippines has increased (15% in 2005 to 18% in 2019), while its export share declined (3.4% in 2005 to 1.6% in 2019).

The intra-ASEAN agricultural trade share has decreased from 24.8% in 2005 to 22.4% in 2019 (Figure 1.1), while the intra-ASEAN agricultural trade value has increased from US$9.3 billion in 2005 to US$25.6 billion in 2019 (Figure 1.2). The fact that the share of intra-ASEAN agricultural trade is going down while the value of intra-ASEAN trade is going up indicates non-agricultural trade outperforming agricultural trade. Market

integration requires a comprehensive approach looking at trade links at different levels. Even if intra-regional trade were not expanding, supra-regional trade might be picking up the slack.

Figure 1.1: Intra-ASEAN agriculture trade share and value

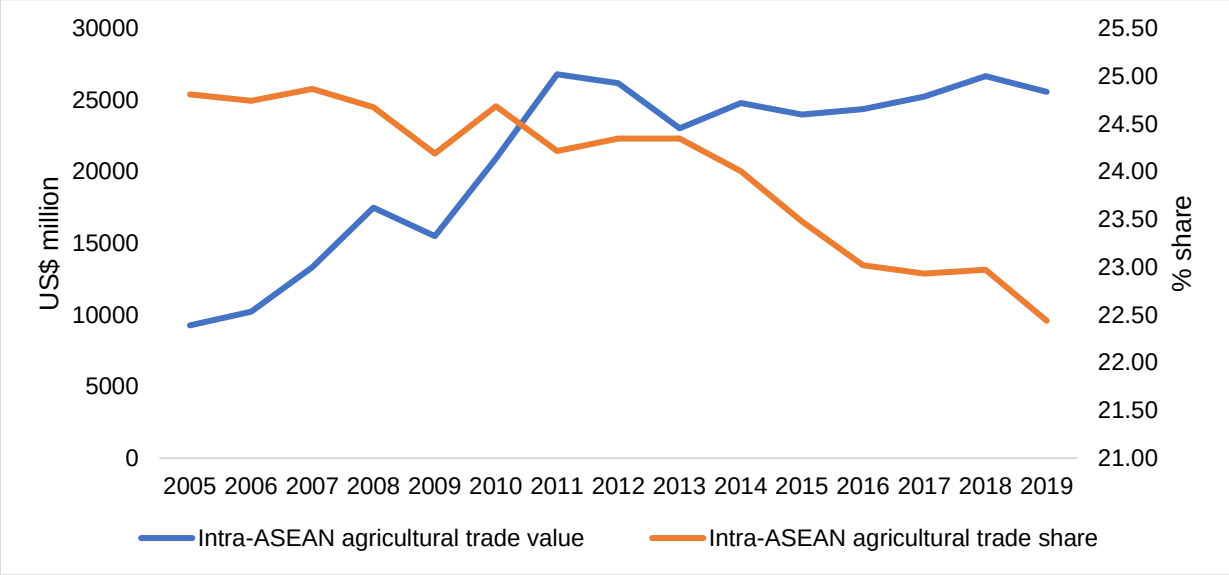


Figure 1.2: Export share in Intra-ASEAN agricultural trade

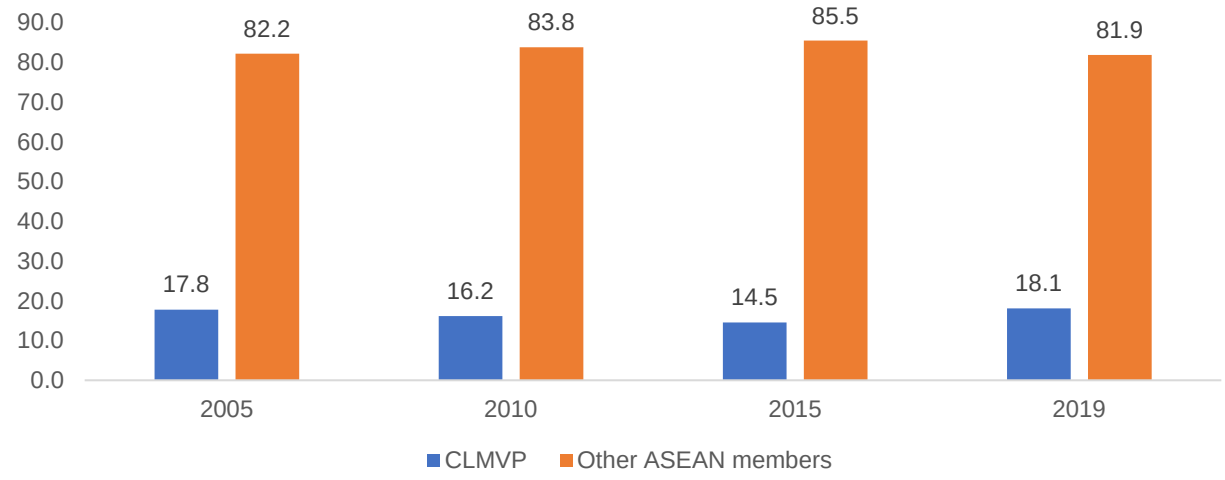
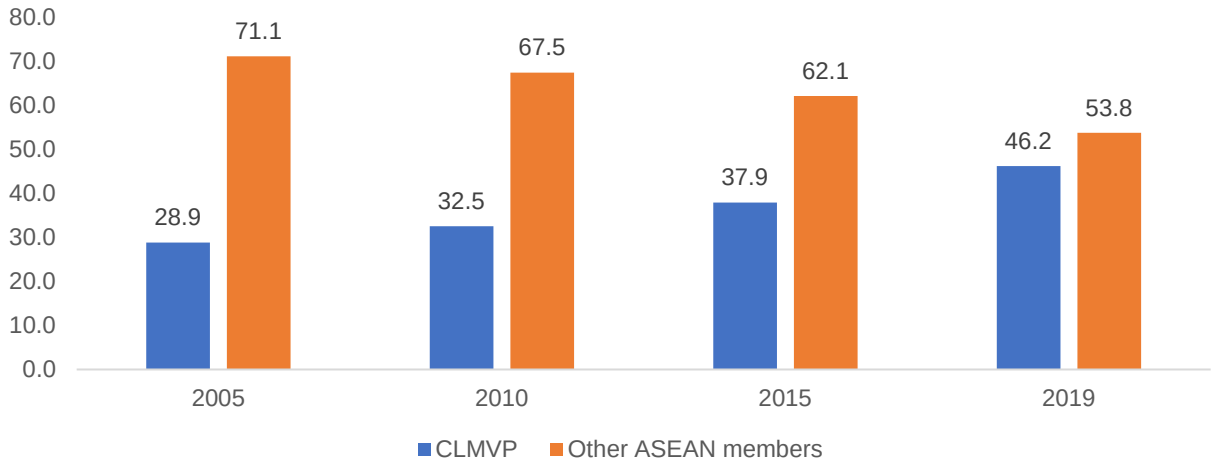


Figure 1.3: Import share in Intra-ASEAN agricultural trade



Each CLMVP countries' trade with ASEAN region has substantially increased between 2005 to 2019. However, imports increased faster than the exports, leading to CLMVP countries having trade deficit with the ASEAN region in 2019. Viet Nam was the only CLMVP country that enjoyed trade surplus with the ASEAN region in 2005 (Figure 1.4 and 1.5).

Figure 1.4: CLMVP countries' export and import share in intra-ASEAN agricultural trade in 2019

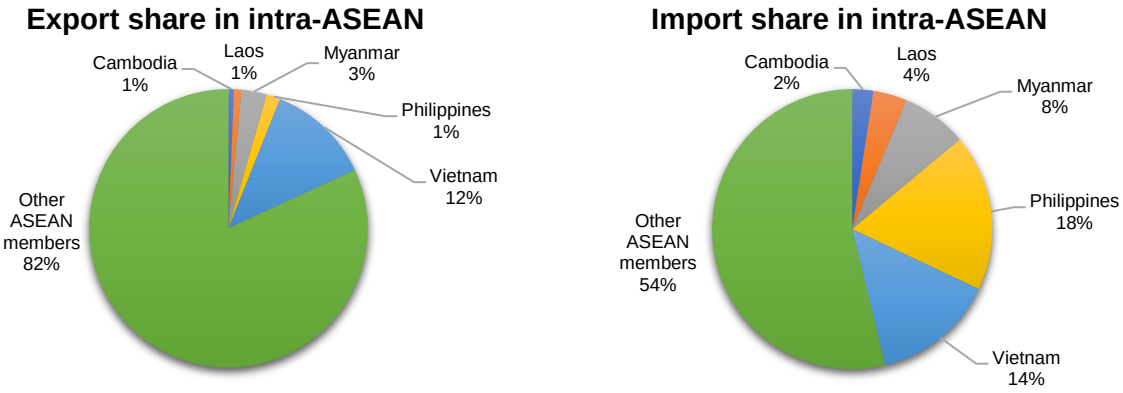
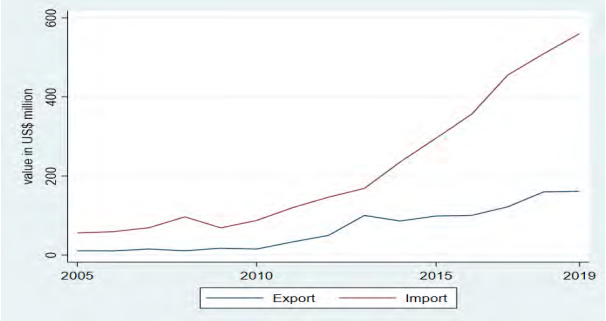


Figure 1.5: CLMVP's trade with ASEAN region

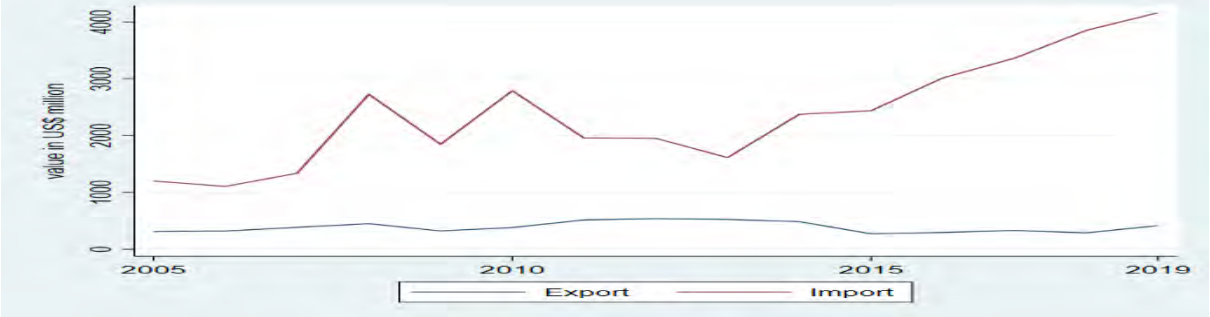
Cambodia	Lao PDR



Myanmar

Viet Nam

The Philippines



1.5.2. Supra-regional: SAARC and ASEAN

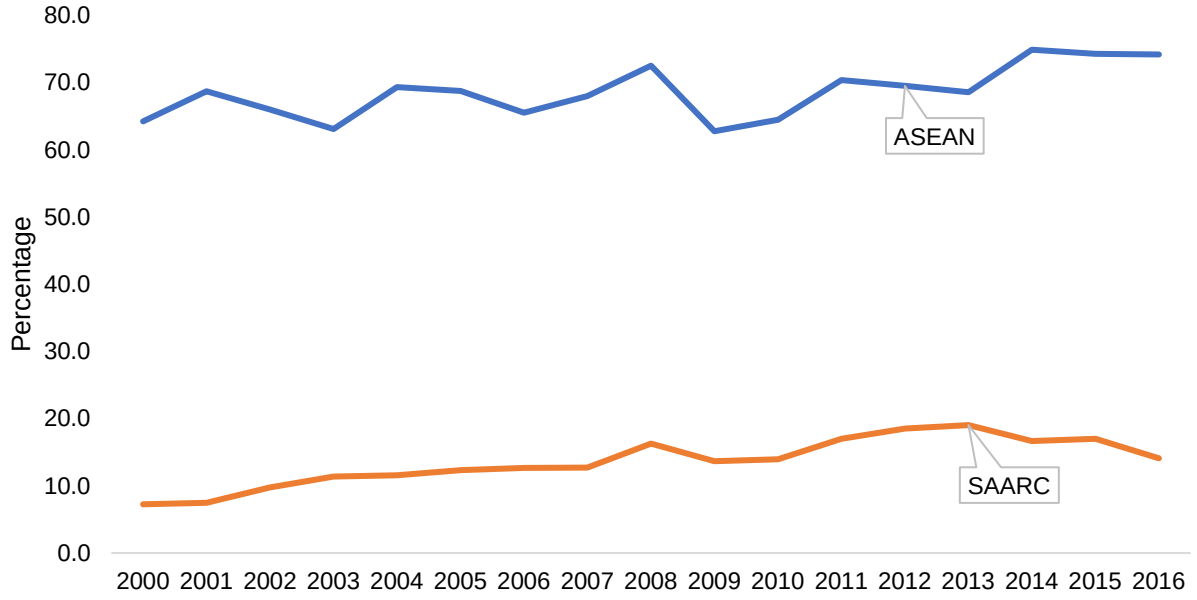
ASEAN and the South Asian Association for Regional Cooperation (SAARC) are two of the largest trading blocs in Asia, with a combined population of 2.6 billion in 2021, approximately one-third of the world population (World Development Indicators – WDI). Over one-third of the population in these regions depends on agriculture for their livelihoods (triennium average ending [TE] 2016), greater than the world average of 29%. Further, growth in the agriculture sector (which contributes around 14% to their gross domestic product [GDP] on average) has slowed down over the past few years. Agricultural trade, which contributes around one-tenth to the total trade of both trading

blocs, can possibly act as an engine of growth if countries were to trade up to their potential.

ASEAN's food trade – as a region – is more open as compared to SAARC (Figure 1.6). Trade openness is conventionally measured as the ratio of trade (exports plus imports) to GDP. Openness is posited as desirable because it allows access to larger markets, creates opportunities for specialization in production, and creates gains through economies of scale, technology transfers, and knowledge spillover (Wacziarg and Welch 2008). Greater openness to trade may also lead to an increase in the total amount and variety of food available to the national population at lower prices.

Viet Nam has the highest openness within ASEAN at 19% (TE2016), followed by Malaysia, Thailand, and Myanmar (Table 1.1). It is remarkable that within SAARC, India, and Pakistan – the two biggest countries by population – have the lowest food trade openness at around 3 and 4%, respectively. Note that the least open countries among the ASEAN, that is, Brunei, The Philippines, and Indonesia, are still more open than the average of all SAARC countries combined, that is, 3%.

Figure 1.6: Trade openness of ASEAN and SAARC



Source: United Nations (2019) and World Bank (2019). Agricultural trade data is not available for 9 countries from 1996 to 1999. Consequently, we have presented the information beginning from the year 2000.

Table 1.1: Trade openness (in percentage) of ASEAN and SAARC countries

Countries	TE2016	Countries	TE2016

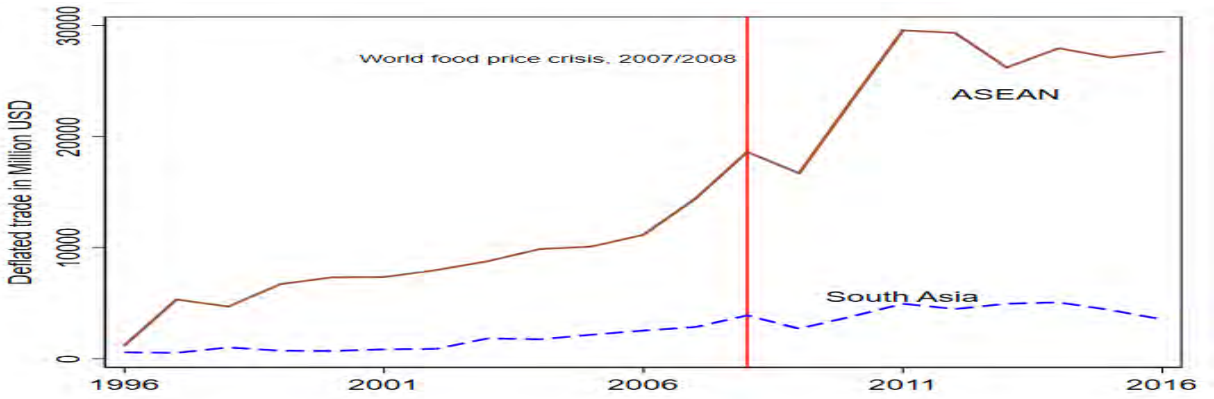
Brunei	4.00	Afghanistan	7.82
Cambodia	6.90	Bangladesh	4.60
Indonesia	5.39	Bhutan	-
Lao PDR	6.73	India	2.55
Malaysia	12.14	Maldives	14.08
Myanmar	9.20	Nepal	7.70
The Philippines	4.97	Pakistan	3.95
Singapore	7.31	Sri Lanka	6.47
Thailand	10.80		
Viet Nam	19.19		
ASEAN (Average)	**8.45**	**South Asia (Average)**	**2.82**

Source: United Nations (2019). Note: TE = Triennium ending average; - = data not available.

A significant measure of the trading relationship's health is also its resilience when faced with shocks, whether idiosyncratic (for example, sanctions on Myanmar) or generalized (the great recession or the food price crisis). Brixiová, Meng, and Ncube (2015) find that the East African community's resilience to external shocks, as compared to the Southern African Customs Union region, improved due to intense intra-regional and intra-industry trade. Further, they highlight that deeper intra-regional and intra-industry trade ties along with other factors such as sound management of capital flows help build the resilience of a regional grouping.

We present the dynamics of intra-ASEAN and intra-SAARC food trade in Figure 1.7. After the food price crisis of 2007/2008, the intra-regional trade of ASEAN and SAARC fell by 10% and 31%, respectively, but increased sharply by 77% and 83%, respectively, between 2009 and 2011. Intra-SAARC trade, on the other hand, gradually declined from 2014 onwards to US$3.53 billion – near to the trade level in the year 2008 – the intra-ASEAN trade remained between US$26 and US$28 billion from 2011 to 2016. It appears that both regions traded more among themselves. There were dips in food exports and recovery, but the ASEAN countries moved much beyond the pre-crisis levels while SAARC countries recovered only to the levels prior to the food price and financial crises. Put alternatively, only the food trade relationship among ASEAN countries improved after the crisis.

Figure 1.7: Intra-regional agricultural trade of ASEAN and SAARC countries



Source: United Nations (2019).

The sharp increase in intra-ASEAN agricultural trade between 2009 and 2011 is attributed to the significant increase in exports of rice, palm oil, and other food products such as beverages, sugar, and vegetable fat and oils. Rice, the most traded commodity in TE2011 – it contributed around 10.5% to the regional trade – grew by 62.5% between 2009 and 2011. Similarly, palm oil (crude and non-crude) and sugar (cane sugar and sucrose) witnessed an increase of 133% and 130%, respectively. In the case of SAARC, the increase in intra-regional trade is from oil cakes, sugar, wheat, rice, spices (capsicum or pimento), and fruits and vegetables such as dates and tomatoes. Among cereals the exports of wheat (flour and durum) and sugar (cane sugar and sucrose) observed a significant increase by 23% and 31%, respectively, between 2009 and 2011.

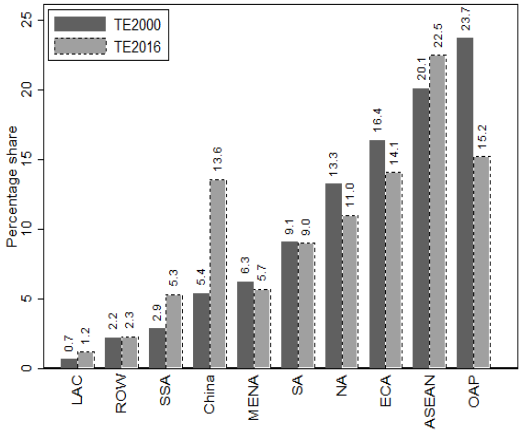
The major commodities, which contributed around 60% of both the intra-regional trades, grew (on average) around 180% and 319% for ASEAN and SAARC, respectively, between TE 2006 and TE 2011. However, their growth fell to 21% and 15% for ASEAN and SAARC, respectively, between TE 2011 and TE 2016. This may explain the decline from US$30 to US$28 billion between 2011 and 2016 in the case of ASEAN, and US$4.9 to US$3.5 billion for SAARC.

In inter-regional trade, Figure 1.8 shows that intra-ASEAN trade occupies the highest share in the total food trade of ASEAN with the world. With an export share of around 14%, China has emerged as the 4th major export destination for ASEAN countries, after Other Asia and Pacific (OAP), and Europe and Central Asia (ECA) regions. ASEAN imports from Latin America and Caribbean (LAC) witnessed the biggest jump of around 9% from TE2000 to TE2016. The Southern Common Market (MERCOSUR), a regional

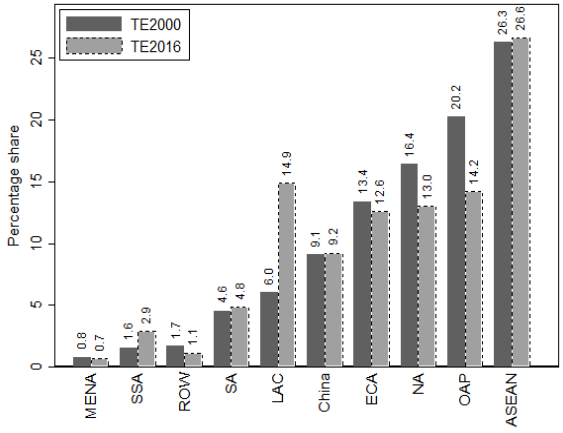
grouping in Latin America, has been exporting mainly milk, soya, and corn to the ASEAN countries (SELA 2015).

Figure 1.8: ASEAN and SAARC region's trade with other regions

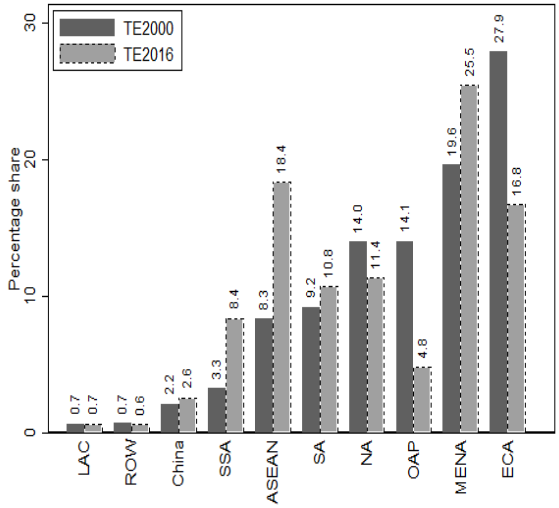
ASEAN region exports to other regions



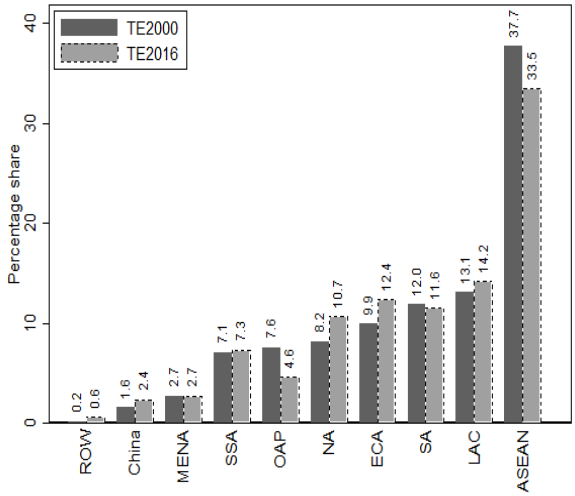
ASEAN region imports from other regions



SAARC region exports to other regions



SAARC region imports from other regions



Source: United Nations (2019). Note: ECA = Europe and Central Asia, LAC = Latin America and Caribbean, MENA = Middle East and North Africa, NA = North America, OAP = Other Asia and Pacific, ROW = Rest of the World, SA = South Asia, SSA = Sub-Saharan Africa, TE = Triennium ending average.

The percentage share of SAARC nations in ASEAN's exports and imports remained unchanged during this period. However, the same does not hold true in the case of SAARC. ASEAN's share in the total exports of the SAARC region has witnessed an increase of 10% between TE2000 and TE2016 (Figure 1.9). The share of other regions such as the Middle East and North Africa (MENA) and Sub-Saharan Africa (SSA) also

increased during this period. In the case of SAARC's import from the regions, ASEAN – which still accounts for one-third of imports – witnessed a decreased share from around 38 to 33.5% (Figure 1.9). The share of other regions, including North America and ECA, however, increased over the period.

The top three partners in exports and imports of ASEAN and SAARC countries are provided in Table 1.2 and Table 1.3. These tables show that the top partners of most ASEAN countries are other ASEAN members, China, India, and Japan (countries with free trade agreements with ASEAN). This is not the case for SAARC countries, though. The top trading partners of most SAARC nations are non-SAARC countries, even after the South Asian Free Trade Area (SAFTA) took effect from 2006.

Table 1.2: Top 3 agri-food export and import destinations of ASEAN countries in TE2016

ASEAN countries	Top export destinations	Top import destinations
Brunei	Malaysia (74.1)	Malaysia (46.9)
	Papua New Guinea (5.4)	Singapore (11.0)
	Singapore (4.6)	Thailand (10.3)
Cambodia	China (17.1)	Indonesia (22.8)
	France (12.0)	Thailand (22.1)
	Malaysia (10.1)	Viet Nam (12.1)
Indonesia	India (11.8)	Australia (17.5)
	China (11.3)	United States (15.2)
	United States (10.3)	China (10.1)
Lao PDR	Viet Nam (48.2)	Thailand (73.1)
	China (22.1)	China (10.5)
	Thailand (18.1)	Viet Nam (9.2)
Malaysia	China (11.0)	Indonesia (13.6)
	Singapore (10.2)	China (10.5)
	India (9.7)	Thailand (8.1)
Myanmar	China (54.0)	Thailand (18.5)
	India (20.6)	Indonesia (17.7)
	Thailand (6.3)	India (15.1)
The Philippines	United States (25.6)	United States (23.5)
	Japan (13.1)	China (8.1)
	Netherlands (9.0)	Indonesia (7.7)
Singapore	Viet Nam (12.6)	China (8.4)
	Malaysia (11.6)	France (10.5)
	Japan (9.6)	Indonesia (8.6)
Thailand	Japan (13.2)	United States (13.0)
	China (12.2)	China (12.7)
	United States (11.0)	Brazil (11.0)
Viet Nam	China (19.5)	Argentina (14.5)
	United States (14.2)	United States (10.9)

	Japan (7.1)	Brazil (10.1)

Source: United Nations (2019). Note: 1) Authors' calculations based on United Nations (2019); these calculations can be provided on demand. 2) Trading partners are listed in the order of rank based on the value of exports and imports, respectively. 3) Figures in parentheses represents percentage share of a country in total trade flow of ASEAN country during triennium ending average [TE] 2016.

Table 1.3: Top 3 agri-food export and import destinations of SAARC countries in TE2016

SAARC countries	Top export destinations	Top import destinations
Afghanistan	India (50.2)	Pakistan (28.7)
	Pakistan (26.8)	Kazakhstan (19.7)
	Iran (6.3)	Malaysia (11.6)
Bangladesh	United Kingdom (12.0)	Indonesia (19.0)
	Saudi Arabia (11.7)	India (14.9)
	Netherlands (9.0)	Brazil (14.3)
Bhutan	-	-
India	Viet Nam (11.6)	Indonesia (19.6)
	United States (11.6)	Malaysia (11.4)
	United Arab Emirates (6.2)	Argentina (9.7)
Maldives	Thailand (31.3)	United Arab Emirates (17.7)
	France (11.5)	India (16.8)
	United States (9.6)	Sri Lanka (11.5)
Nepal	India (77.3)	India (61.6)
	Bangladesh (6.0)	Argentina (6.3)
	Afghanistan (4.0)	Indonesia (5.7)
Pakistan	Afghanistan (21.0)	Indonesia (27.1)
	United Arab Emirates (8.8)	Malaysia (8.4)
	China (7.2)	India (7.8)
Sri Lanka	India (8.4)	India (21.7)
	United States (6.9)	Canada (10.2)
	Russian Federation (6.5)	New Zealand (8.1)

Source: United Nations (2019). Note: - = data not available. 1) Authors' calculations based on United Nations (2019); these calculations can be provided on demand. 2) Trading partners are listed in the order of rank based on the value of exports and imports, respectively. Figures in parentheses represents percentage share of a country in total trade flow of SAARC country during triennium ending average [TE] 2016.

2. Products and Destinations

CLMVP countries are characterized by low diversity in agricultural exports. Thus, nearly half of the total agricultural exports from all of them excepting Laos is contributed by only one commodity. Poverty also remains a major challenge for CLMVP, particularly rural poverty where majority of poor people depend upon agriculture for their subsistence. The persistence of smallholders in this region has been a major concern despite sustained economic growth (Rigg, Salamanca, and Thompson 2016).

With low diversification, CLMVP trade remains vulnerable to external shocks. Integrating with ASEAN can help these countries in absorbing the adverse shocks like the food price crisis of the year 2007–08. These countries should diversify and expand their exports at the product and partner level to reduce their vulnerability, which implies that they should adjust at both the extensive as well as intensive margins. (Amurgo-Pacheco and Pierola 2008).

In Figure 2.1 and Figure 2.2, the top 10 commodities in the CLMVP region have been identified by calculating the share of each commodity based on export values (million US$) in the total agricultural exports for the period 2016–2019. These 10 commodities in each country comprise exports of top 10 agricultural products, and together account for more than 90% (527 Mn $) in Cambodia, 83% (400 Mn $) in Lao PDR, 87% (1660 Mn $) in Myanmar, 78% (4236 Mn $) in The Philippines, and 76% (17693 Mn $) in Viet Nam (Figure 2.3 and Figure 2.4). The top five exports of all the five countries together account for more than 60% of agricultural exports.

Figure 2.1: Share of Exporting Top 10 Agricultural Products in CLMVP Region

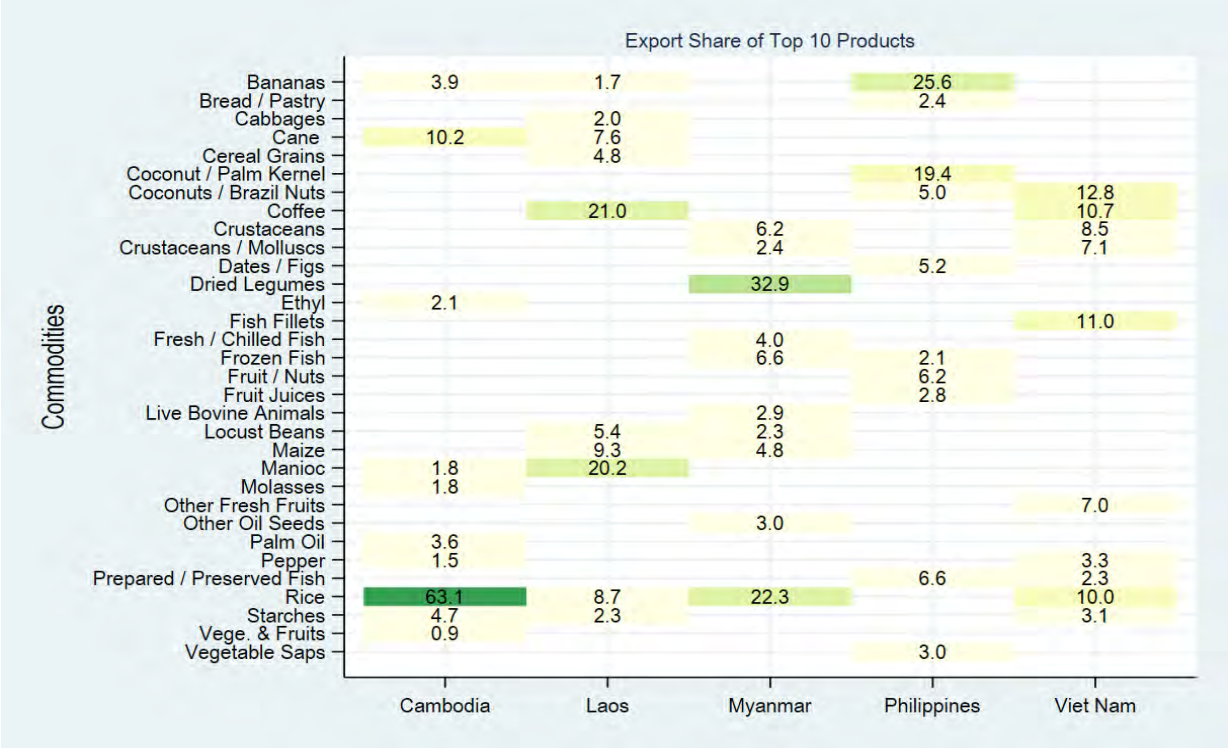


Figure 2.2: Total Export of Top 10 Agricultural Products in CLMVP Region (Mn $)

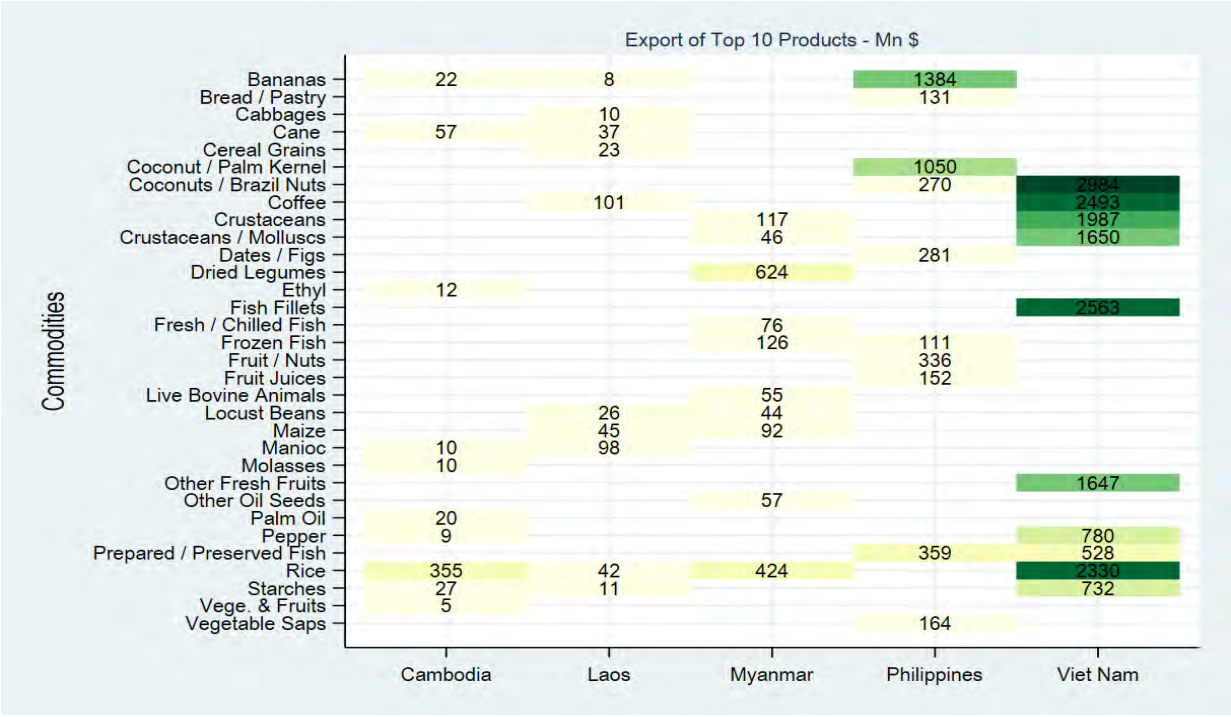


Figure 2.3: Top 10 products total export value in CLMVP countries

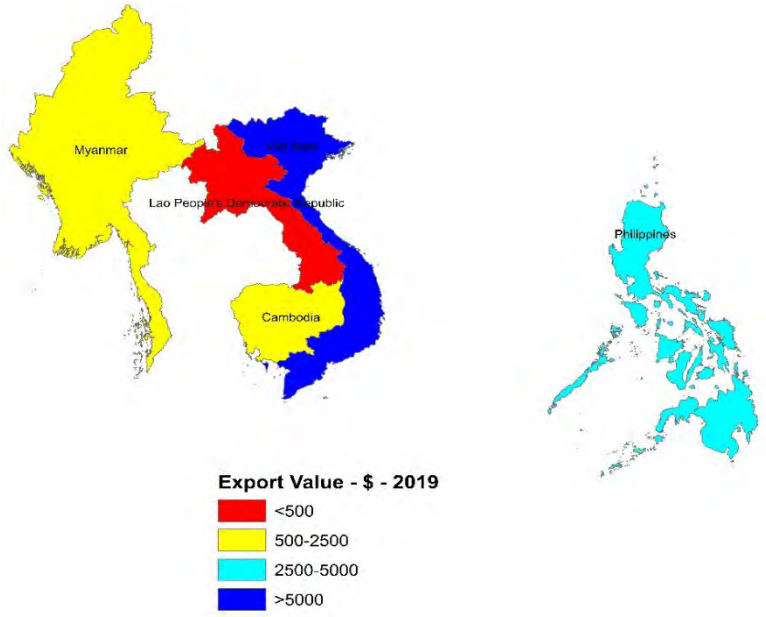
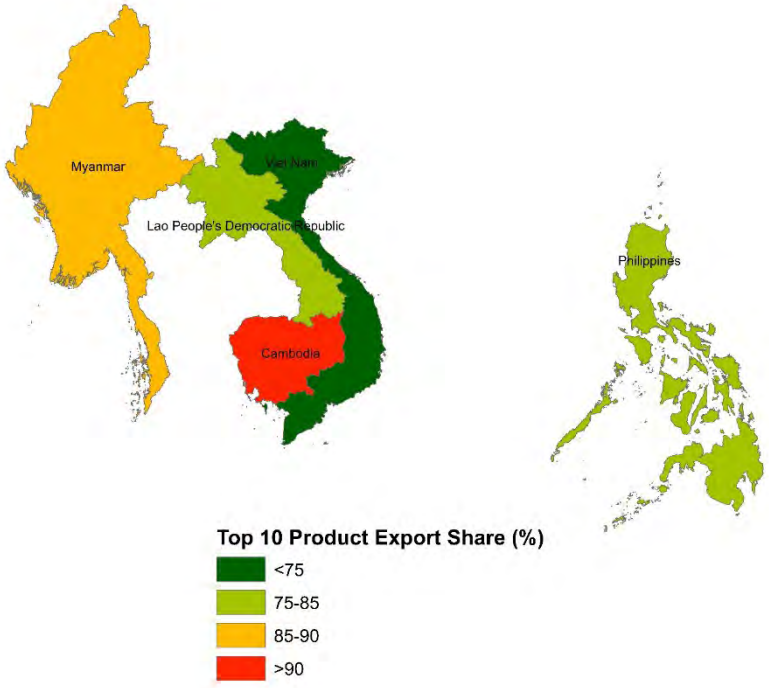


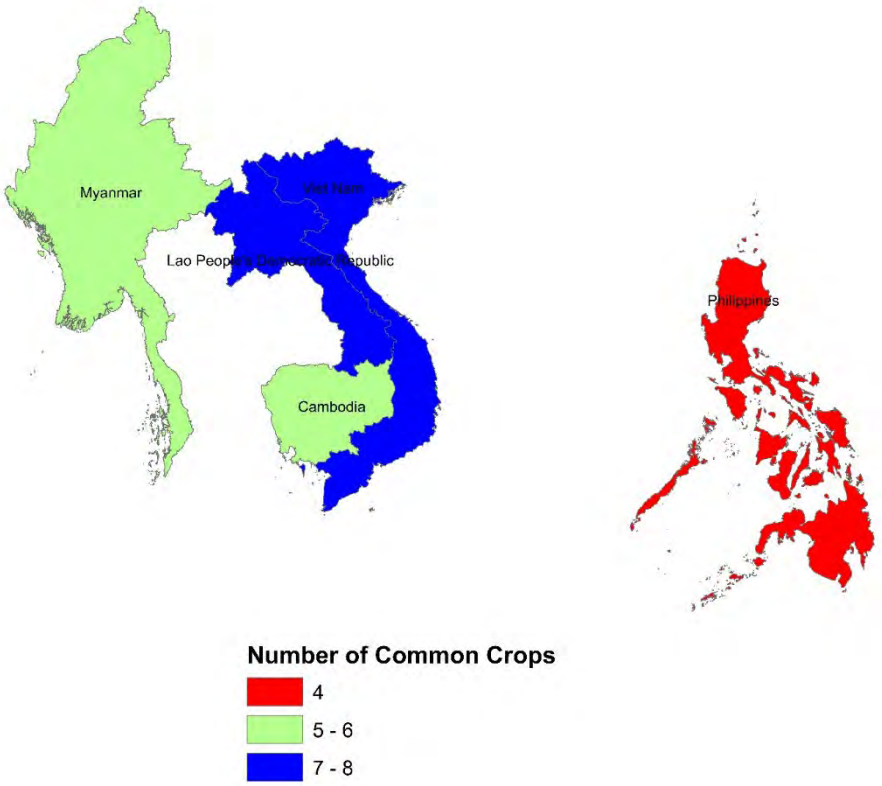
Figure 2.4: Export Share of top 10 products



CLMVP region is characterized by low diversity in agricultural exports as compared to other regions/countries. About two-third of the top 10 agriculture export in Cambodia is contributed by rice, whereas other agricultural products like coffee, bananas, manioc,

dried legumes, and coconut have higher shares apart from rice in rest of the countries. Rice is the most common agriculture export commodity in the CLMVP region except The Philippines. In the top 10 agricultural commodities across the CLMVP region, more than 7 common agricultural crops have been exported for Laos and Viet Nam, more than 5 common crops exported for Myanmar and Cambodia, and only 4 common agricultural products were exported from The Philippines (Figure 2.5).

Figure 2.5: Number of common crops exported in inter-CLMVP



In Figures 2.6–2.10, the share of top 10 agricultural products in 2019 mostly remains the same as compared to 2005–15 period for Cambodia. The agricultural products such as bananas, ethylene, and vegetables and fruits became important agricultural products during TE 2019 at the cost of frozen fish, maize, and crustaceans. During TE 2019, Cambodia's top 5 agricultural export commodities are rice (63%, 355 Mn $), cane (10%, 57 Mn $), starches (5%, 27 Mn $), bananas (4%, 22 Mn $), and palm oil (4%, 20 Mn $). Recently, the Chinese government granted import permission for Cambodian bananas, making them the first Cambodian fresh fruit to receive market access to China.

Cambodia had exported modest volumes of bananas to other countries in the region such as Viet Nam and Singapore before 2015. With this export growth of bananas to China, Chinese companies have been investing in plantations and other banana production and export infrastructure in Cambodia. Similarly, in the case of Laos, bananas and cereal grains became an important commodity for exporting at the cost of buckwheat and live animals. The shift in China's banana sourcing towards Southeast Asian countries has also played a role in boosting Cambodia and Laos' banana exports.

However, the export share of coffee and maize had declined by 10 and 6 percentage points, respectively, in TE 2019 as compared to the 2005–15 period. On the other hand, the export share of manioc had increased by 15 percentage points in TE 2019. Laos' top five agricultural export commodities are rice coffee (21%, 101 Mn $), manioc (20%, 98 Mn $), maize (9%, 45 Mn $), rice (9%, 42 Mn $), and cane (8%, 37 Mn $).

Myanmar is known to be an exporting hub of lentils to India, but several policy changes in India had affected the export share of dried legumes recently. About 55% of the exports from 2005–15 was concentrated in dried legumes, but the share had fallen to 33% in TE 2019, and despite that the export share of rice increased by 15 percentage points in TE 2019. The key reason for the decline in imports from Myanmar has been the import restrictions on peas and lentils levied by India and Myanmar's political turmoil, with international buyers unable to purchase dried mung beans from Myanmar.

In Myanmar, only crustaceans/mollusks became an important exporting commodity and the share of fruits and nuts declined. Myanmar's top five agricultural commodities are dried legumes (33%, 624 Mn $), rice (22%, 424 Mn $), fish (7%, 126 Mn $), crustaceans (6%, 117 Mn $), and maize (5%, 92 Mn $). Meanwhile, the export share of bananas in The Philippines has increased by 12 percentage points, and export of coconut declined by 6 percentage points. The main reason for decline in export of coconut is due to an oversupply of global vegetable oils coupled with the decline in local copra production.

The export shares remain constant for rest of the agricultural commodities. Several new agricultural commodities such as dates/figs, bread/pastry, and frozen fish became important commodities for export during TE 2019, which were replaced by pineapples, cane, and milk and creams. The Philippines' top five agricultural export commodities are

bananas (26%, 1384 Mn $), coconut (19%, 1050 Mn $), preserved fish (7%, 359 Mn $), fruits and nuts (6%, 336 Mn $), and dates, figs, and pineapples (5%, 281 Mn $).

Viet Nam is the most diversified country in the CLMVP region in terms of total share in export values and is not concentrated to specific commodities like Cambodia, Laos, and Myanmar. Yet it is surprising to see the shares of top 10 agricultural commodities remaining constant over the period since 2005. Viet Nam's top five agricultural export commodities are coconut (13%, 2984 Mn $), fish fillets (11%, 2562 Mn $), coffee (11%, 2492 Mn $), rice (10%, 2330 Mn $), and crustaceans (9%, 1986 Mn $), while the share of manioc became important in total exports during TE 2019.

Figure 2.6: Share of Top 10 agricultural products, Decadal 2005–15 and TE 2019 – Cambodia

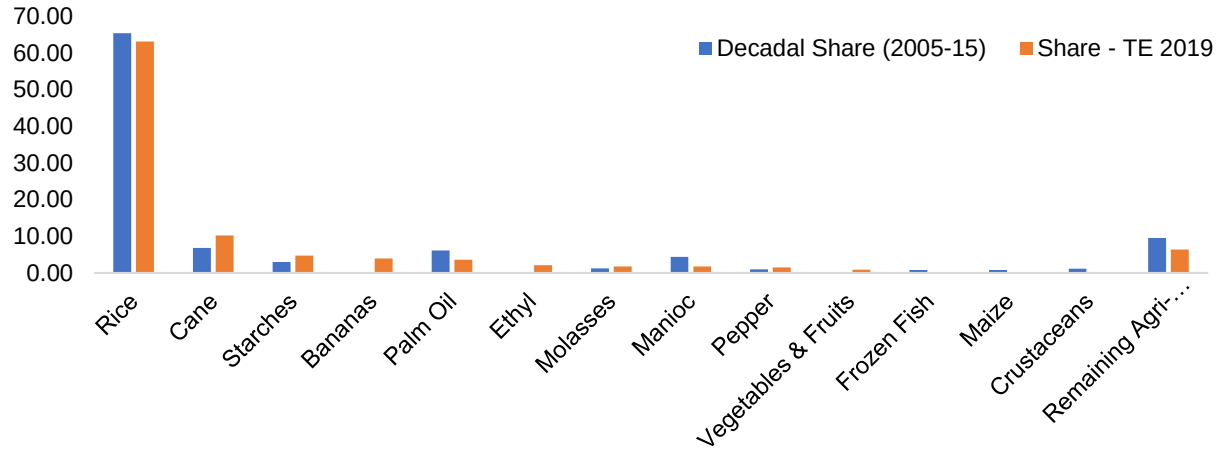


Figure 2.7: Share of Top 10 agricultural products, Decadal 2005–15 and TE 2019 – Laos

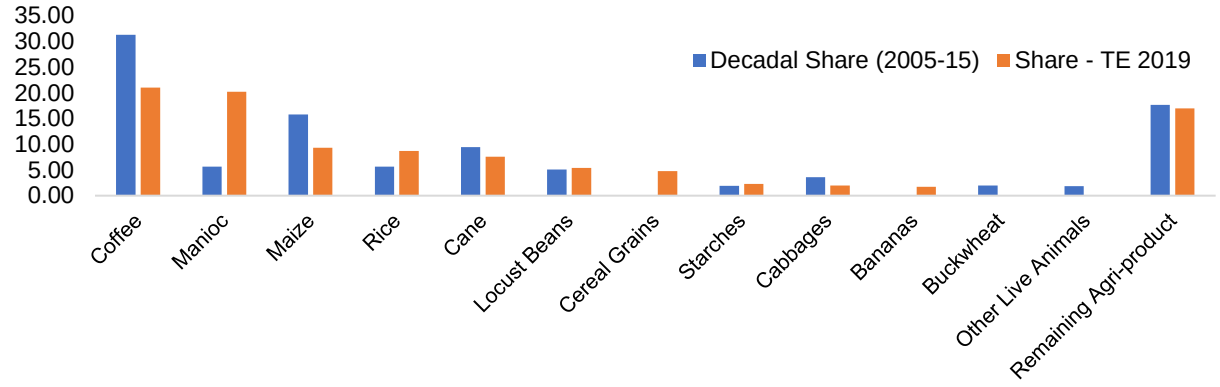


Figure 2.8: Share of Top 10 agricultural products, Decadal 2005–15 and TE 2019 – Myanmar

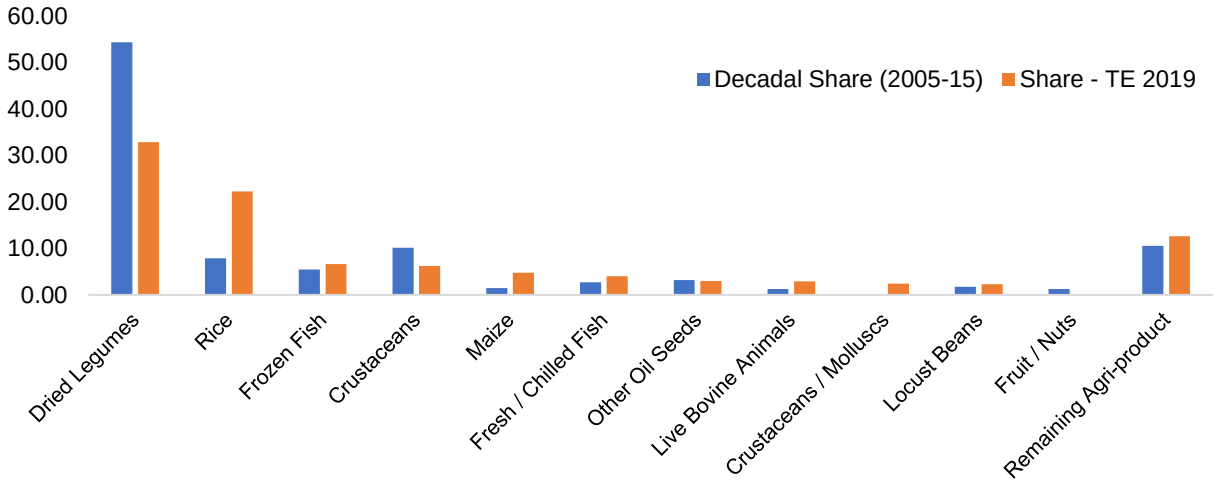


Figure 2.9: Share of Top 10 agricultural products, Decadal 2005–15 and TE 2019 – Philippines

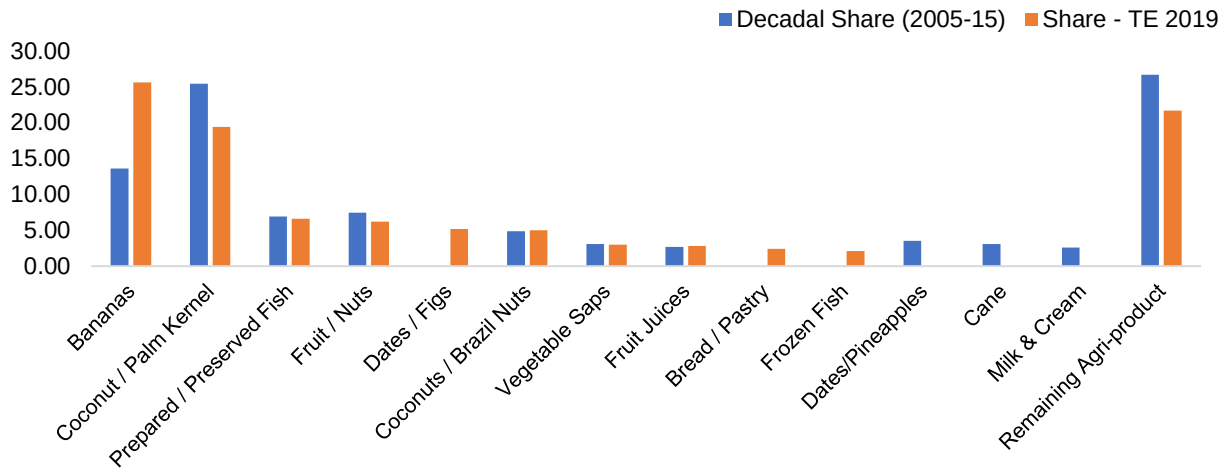
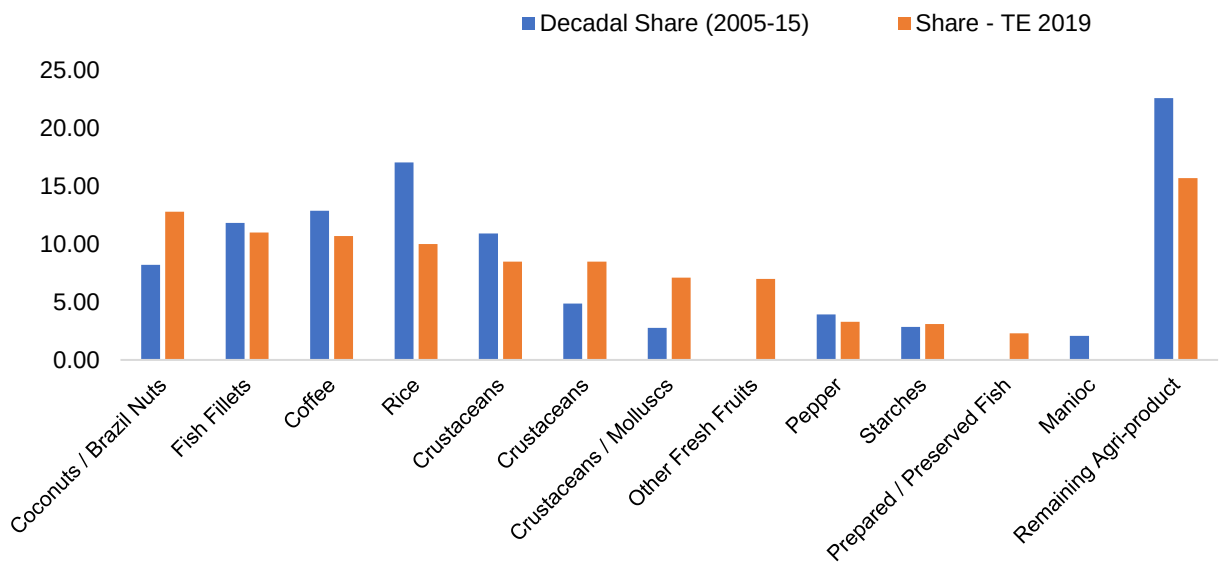


Figure 2.10: Share of Top 10 agricultural products, Decadal 2005–15 and TE 2019 – Viet Nam



The characterization of these countries across commodities are dynamic. The total export values of top 10 agricultural products of Cambodia and Laos is close to 927 Mn $, which is one-third of the coconut export value of Viet Nam. As discussed above, in Viet Nam coconut contributes only 13% of the total export share. However, for Myanmar, the total export value of top 10 agricultural products is about 1660 Mn $ which is close to half of the coconut export value of Viet Nam. The total export values of agricultural products of Cambodia, Laos, Myanmar, and The Philippines combined are equivalent to 35% of the total value of agricultural export products of Viet Nam. For CLMVP countries, the experience of Viet Nam can offer valuable lessons.

Note that Viet Nam exports have expanded sizably with developed countries such as United States of America (USA), Germany, United Arab of Emirates (UAE), and China. In CLMVP region, China is the common trading partner for all and contributes about one-fourth of the total export share. Cambodia and Laos have less diversified partners/markets as compared to other countries (Figures 2.11–2.15). Rebalancing in China may mean less of a role for commodity exports from the region.

Figure 2.11: Partner margins in exports ($) – Cambodia

Figure 2.12: Partner margins in exports ($) – Laos

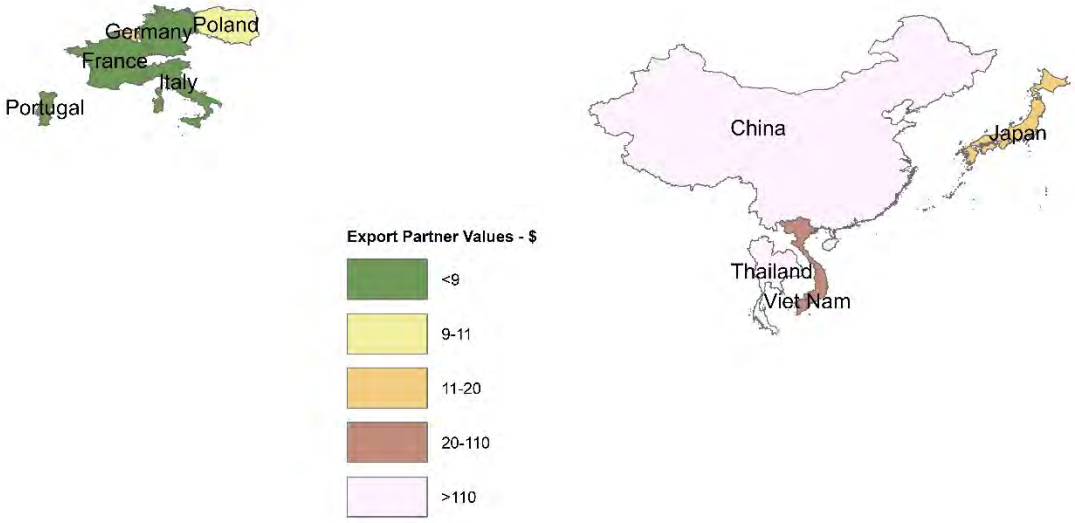


Figure 2.13: Partner margins in exports ($) – Myanmar

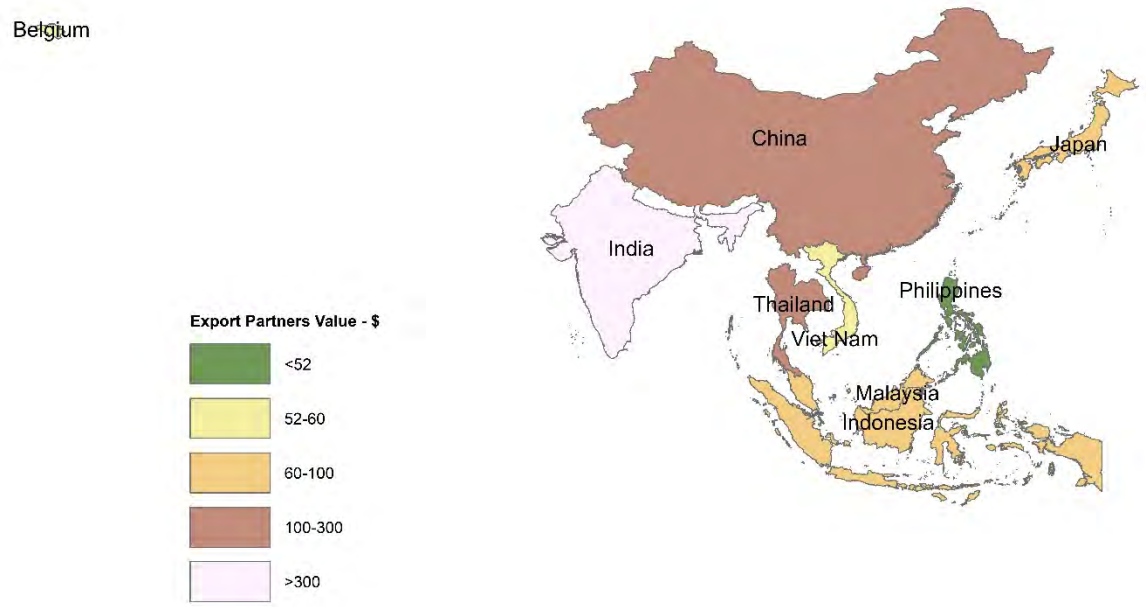


Figure 2.14: Partner margins in exports ($) – The Philippines

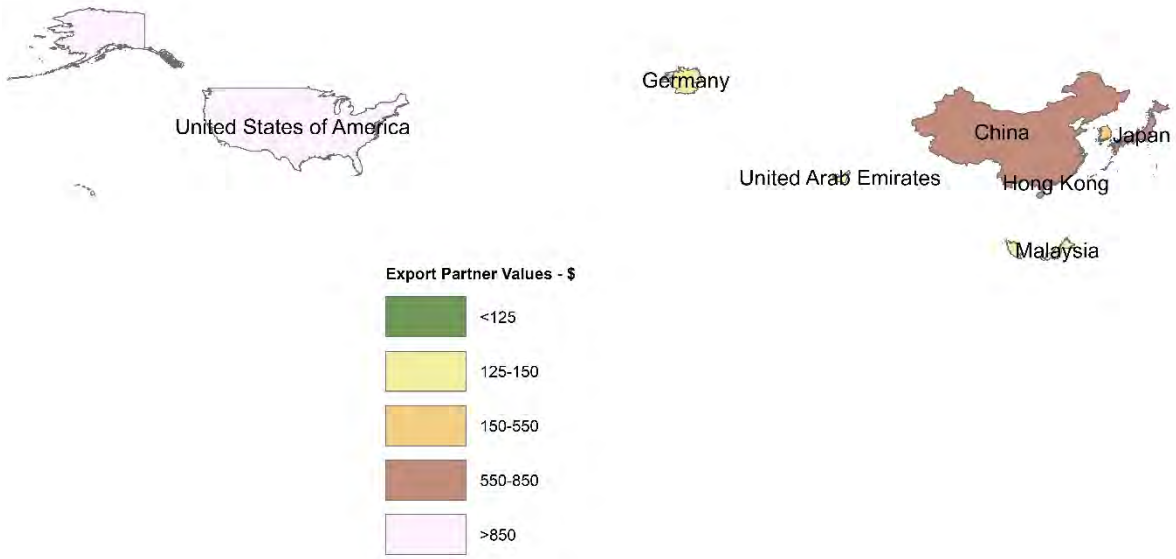
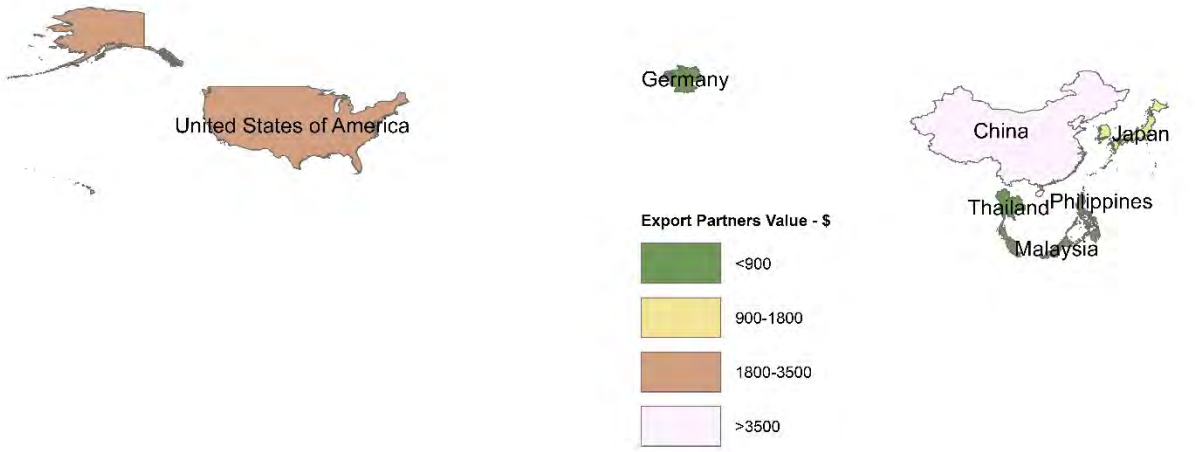


Figure 2.15: Partner margins in exports ($) – Viet Nam



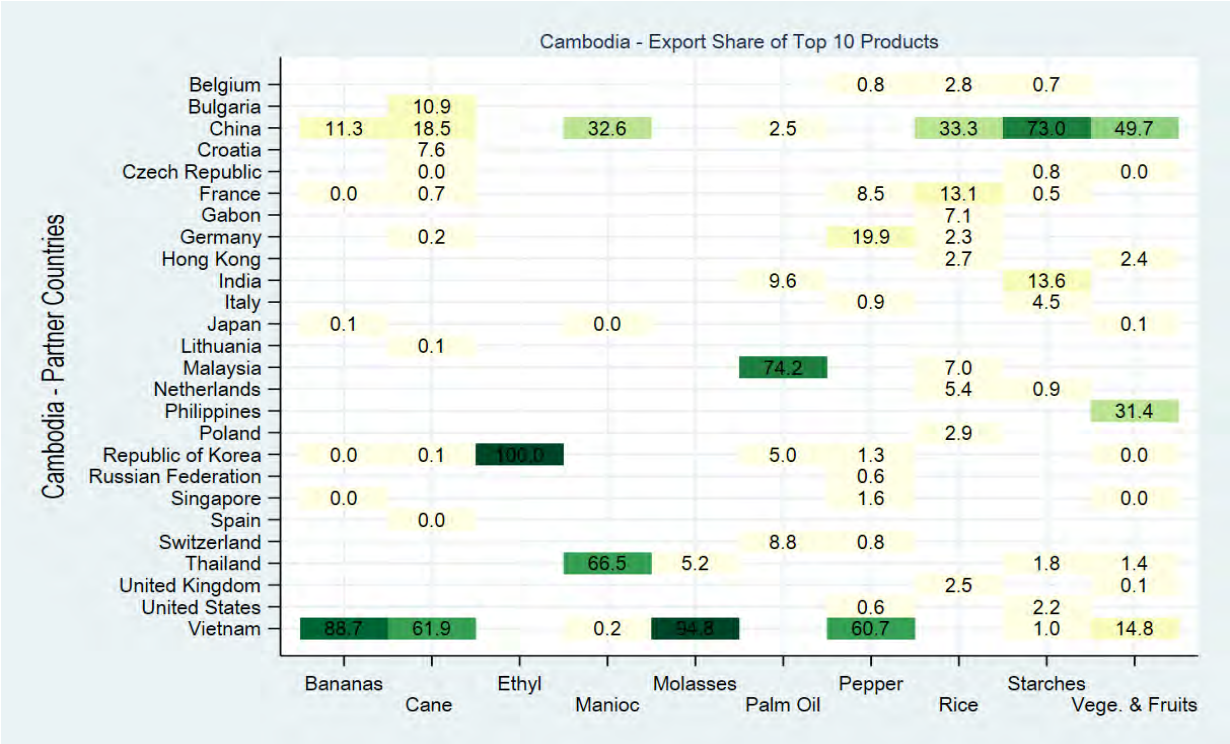
Cambodia and Lao PDR have tried to focus in their trade strategies on several countries but have been exporting more than four agricultural commodities primarily to China, Thailand, and Viet Nam. In the case of Myanmar, more than six agricultural commodities are exported to China (locust beans, maize, other oil seeds, rice, crustaceans, and dried legumes), Japan (crustaceans, other oil seeds, dried legumes, locust beans, and fresh/chilled fish), and Thailand (fresh/chilled fish, live bovine animals, maize, other oil seeds, frozen fish, and crustaceans). Whereas the major partner countries for The Philippines and Viet Nam are China, Japan, Netherlands, and USA with more than six agricultural products.

The six agricultural products in The Philippines for China are bananas, dates/figs, coconut/palm kernel, bread/pastry, fruit and nuts, and fruit juices; for Japan, bananas, dates/figs, frozen fish, prepared/preserved fish, fruit nuts and coconut; for Netherlands, coconuts, Brazil nuts, fruit nuts, fruit juices, prepared/preserved fish, and vegetable saps; and lastly for USA, fruit juices, fruit nuts, coconuts, /Brazil nuts, frozen fish, and vegetable saps. However, for Viet Nam, the six major agricultural products for China are other fresh fruits, starches, rice, crustaceans, coconuts/Brazil nuts, and pepper; for Japan, prepared/preserved fish, fish fillets, crustaceans/mollusks, crustaceans, and coffee; for Netherlands, coconuts/Brazil nuts, crustaceans, fish fillets, pepper, prepared/preserved

fish, and other fresh fruits; and lastly for USA, coconuts/Brazil nuts, coffee, crustaceans, fish fillets, pepper, and prepared/preserved fish.

The CLMVP region started exporting to many European countries and USA, leading to a significant increase in exports, an extensive margin outcome. The commodity-wise share of export values across countries in Figures 2.16–2.20 depicts some level of expansion. CLMVP can benefit from integration with ASEAN, ASEAN + 3, G4,[1] and G7[2].

Figure 2.16: Product and Partner Countries – Export Share – Cambodia



[1] G4 Nations – Brazil, Germany, India, and Japan
[2] The G7 is an intergovernmental political forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, as well as the European Union

Figure 2.17: Product and Partner Countries – Export Share – Lao PDR

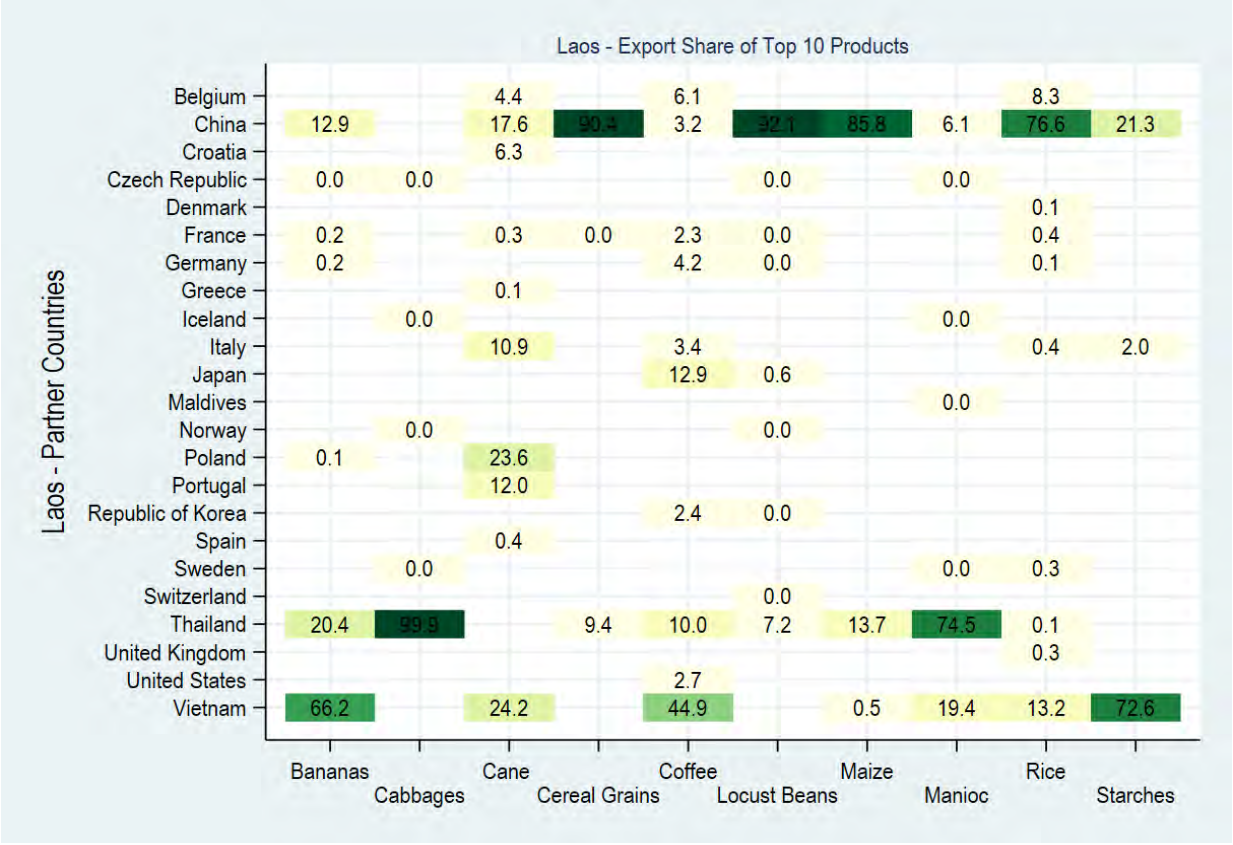


Figure 2.18: Product and Partner Countries – Export Share – Myanmar

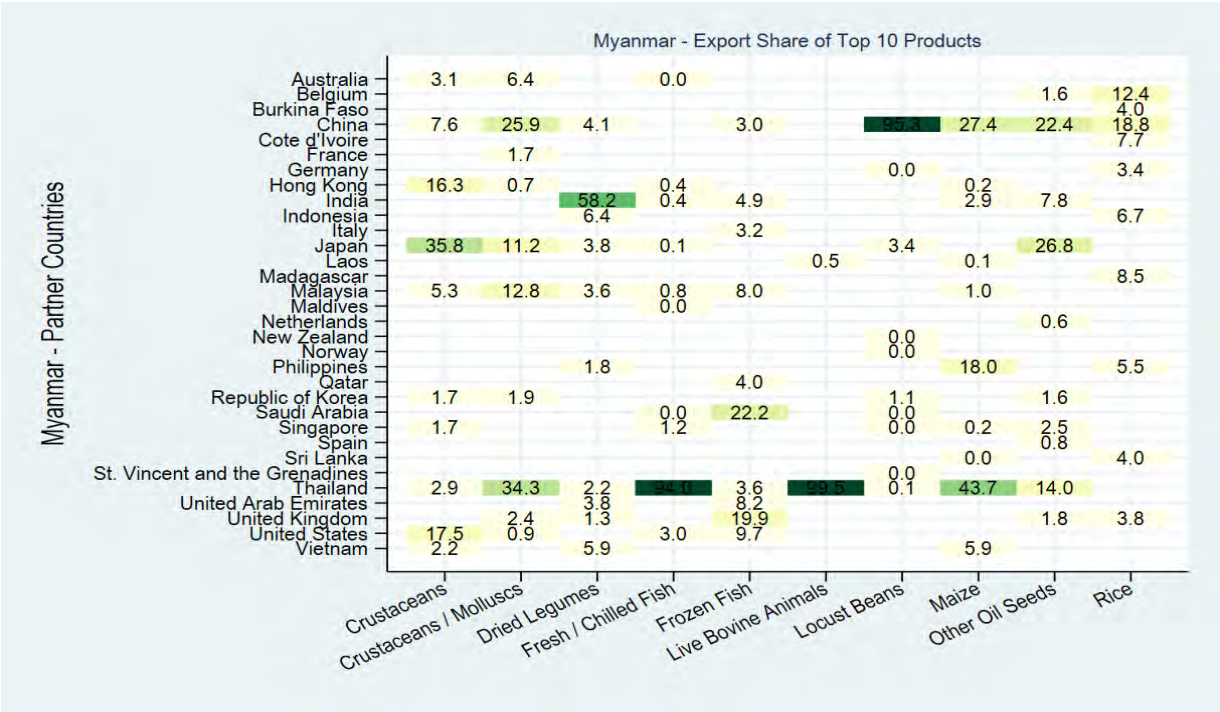


Figure 2.19: Product and Partner Countries – Export Share – The Philippines

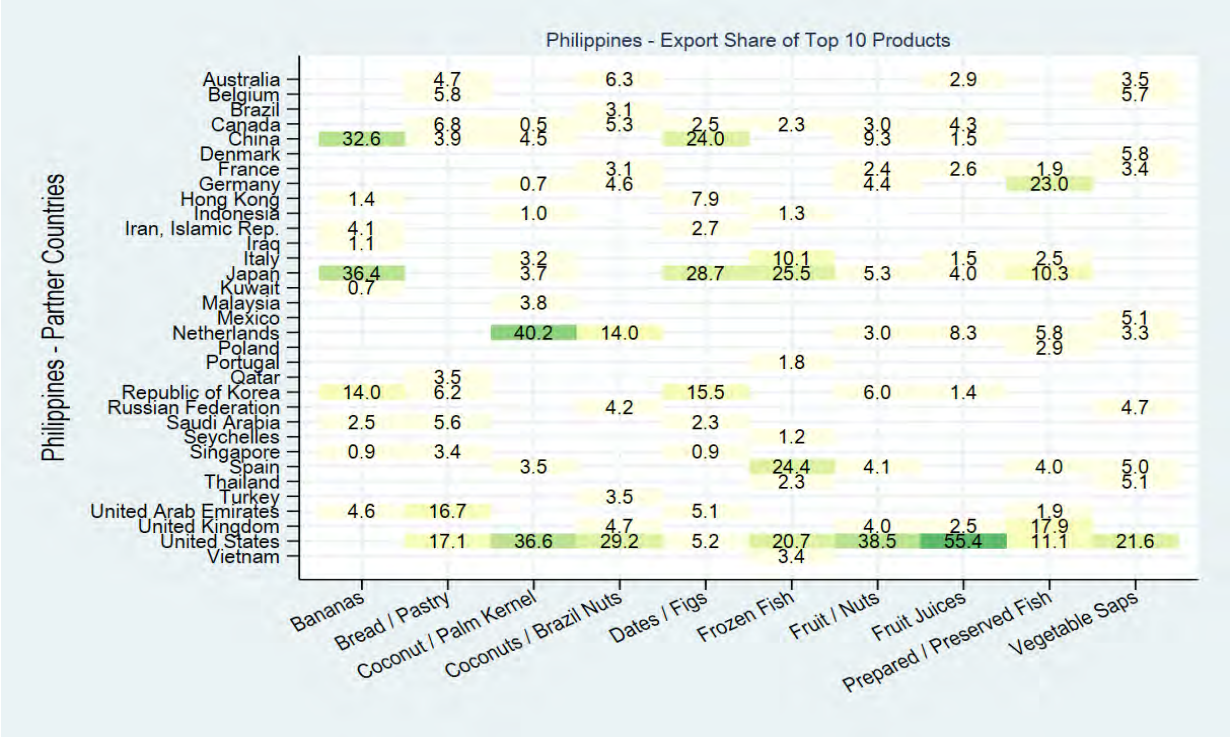
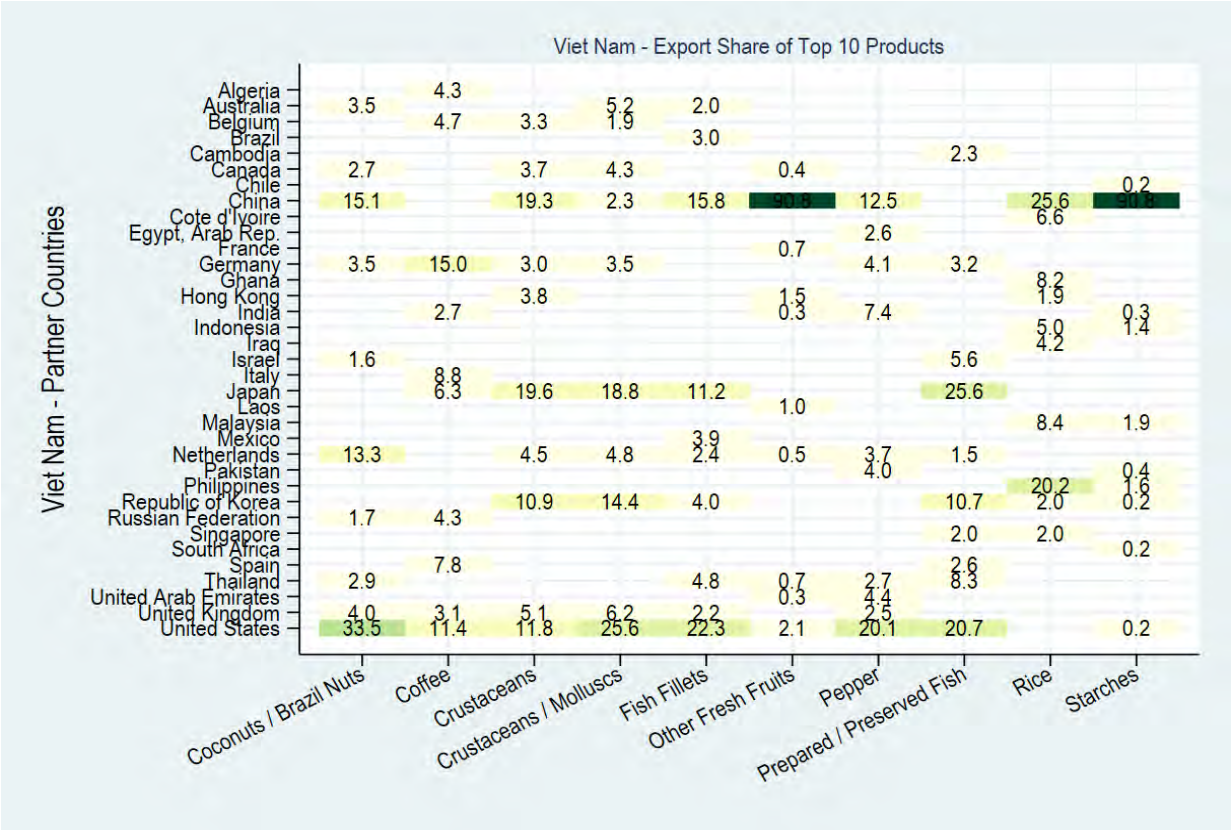


Figure 2.20: Product and Partner Countries – Export Share – Viet Nam



As discussed earlier, CLMVP trade remains vulnerable to external shocks because of low diversification. The persistence of smallholders in this region has been a major concern despite sustained economic growth (Rigg, Salamanca, and Thompson 2016). Integrating with ASEAN, ASEAN + 3, G4, and G7 may help these countries in absorbing the adverse shocks like the food price crisis of the year 2007–08.

These countries should diversify and expand their exports at the product and partner level to reduce their vulnerability, which implies that they should adjust at both the extensive as well as intensive margins. Adjusting at intensive margin means exporting old products to existing partners with greater quantity whereas adjusting at extensive margin means exporting new products, new varieties of old products to old or new markets, new products to new markets, and new products to old markets (Amurgo-Pacheco and Pierola 2008).

3. Data and Methodology

In this report, the focus is on agricultural trade of the CLMVP countries to understand the importance of the ASEAN. Opportunities for smallholders are underlined in these countries by:

i. analyzing the trends of their top exports over time, that is, the period between 2007 and 2019–20
ii. highlighting destinations with the highest export potential
iii. measuring the level of competition to determine the extent of CLMVP's integration with ASEAN

To identify top exports of CLMVP, decadal exports (in deflated Million US$) of the commodities was considered and ranked by calculating the share of each commodity in the overall total agricultural exports. the exercise to identify top destinations for CLMVP was also repeated.

3.1. Data

The analysis is performed at 4–digit level data (H1 Nomenclature) downloaded from World Integrated Trade Solution. Since Myanmar and Lao PDR export data is missing, mirror data of other countries' imports from Myanmar and Laos is used as a proxy. Agricultural trade data generally includes chapters related to Animal and Animal Products (HS 01–05), Vegetable Products (HS 06–15) and Foodstuffs (HS 16–24). However, products from Residues and Wastes Food Industries (HS 23) and Tobacco Products (HS 24) are not included in our analysis.

3.2. Methodology

The two main indicators of 'Trade Potential' and 'Competition Indices' are presented to assess the nature and extent of integration of CLMVP with ASEAN markets. The rationale behind this characterization is that a higher trade potential with lower competition will offer an opportunity for agricultural producers of CLMVP to obtain higher returns from exporting, that is, being a part of the market integration within ASEAN and beyond. The two relevant markers of 'Trade Potential' and 'Competition Indices' are discussed below.

3.2.1. Trade potential

Trade potential is defined as the lower value between the country's global exports and the partner country's global imports, minus the actual trade between the two countries for a year. It considers exports and imports as country's supply and demand potential, respectively. Trade potential for a commodity is given by –

$$Trade\ potential = \min(country's\ global\ exports,\ partner\ country's\ global\ imports) - actual\ trade \quad (1)$$

Note that this indicator estimates only the maximum possibility of trade between the two countries relative to the actual trade. It does not take into account the supply side constraints that a country may face in producing and exporting a specific product (Division of Market Development [ITC] 2014). We will be interchangeably using 'trade potential' term with 'export potential' which is specific to this report only.

3.2.2. Measures of Competition

To measure the competition between countries, we employ Value-Based Index (VBI) and Count-Based Index (CBI) of competition for agricultural commodities (Mattoo, Mishra, and Subramanian 2017). These indices exploit the variation in exporters, importers, products, and time based on disaggregated trade data. In constructing these indices, the trade data at HS 6-digit level of product disaggregation from World Integrated Trade Solution (WITS) is used, which is based on UN COMTRADE data.

More formally, the competition faced by CLMVP with respect to a competitor, c, in an importing country, j, for product, g, can be measured by VBI, which is given as

$$VB_g^{i,j} = \sum_{g'=1}^{G} \left(\frac{V_{g'}^{i,j}}{V_g^{i,j}} \right) s_{g'}^{c,j} \quad (2)$$

where i is CLMVP (considered individually), g is a HS 4-digit product, g' is a HS 6-digit product and G is the total number of HS 4-digit products. The first term (in parenthesis) on the right-hand side captures the relative importance of g' in the exports of CLMVP. This is measured as the value of HS 6-digit product g' exported by CLMVP to importing

country, j, divided by the value of the corresponding HS 4-digit product g exported by CLMVP to importing country, j.

The second term, $s_{g'}^{c,j}$, captures the relative importance of a particular competitor, c, as a source of imports of HS 6-digit product, g', in importing country j. It is measured as the value of HS 6-digit product, g', exported by the competitor to importing country, j, divided by the total imports of HS 6-digit product, g', by importing country, j. The product of the first and the second term obtained at the HS-6 level is then aggregated to obtain the VBI at the level of HS 4-digit product, g, and a competitor, c.

The VBI captures the intensive margin of competition since it is conditional on a competitor exporting the products exported by CLMVP. A simpler and more intuitive measure of competition captures the extensive margin of competition – numbers of products exported by a competitor that are also exported by CLMVP. This is a CBI of competition, which is given as

$$CB_g^{i,j} = \frac{N_g^{i,j}}{N_g^{i,j}} \quad (3)$$

It measures the number of HS 6-digit products, within a HS 4-digit product code g, that are exported by CLMVP and by competitor c to destination j as a proportion of the total number of HS 6-digit products, within the same HS 4-digit product code g, exported by CLMVP to destination j.

Hence, a rise in the value of VBI indicates that CLMVP are competing in more relevant commodity by value whereas an increase in the value of CBI means that they are competing in more commodities. The value of VBI and CBI lies between 0 and 1, where 0 means no competition.

3.2.3. Measure of quality differentiation – Moving up the value chain

In this report, the unit value (deflated) is also derived as proxy for export price by dividing export value (deflated) by total quantity. Export price derived at HS 4-digit product is given as

$$UV_g^{ijt} = \frac{Export\ Value_g^{ijt}}{Total\ Quantity_g^{ijt}} \quad (4)$$

where i is CLMVP (considered individually), j is the destination country, and UV_g^{ijt} is the export price of CLMVP in country j in time t for product g. Export prices are calculated to draw a broad conclusion regarding the quality of the products exported to different and common destinations by CLMVP.

4. Trade Indicators

4.1. Trade potential

The ‘Trade Potential’ indicator is presented in this section to estimate the possibility of trade for top commodities of CLMVP. ‘Trade Potential’ is defined as the lower value between the country’s global exports and the partner country’s global imports, minus the actual trade between the two countries. It considers exports and imports as a country’s supply and demand potential, respectively. Trade potential for a commodity is equated as

$$Trade\ potential = \min(country's\ global\ exports,\quad partner\ country's\ global\ imports) - actual\ trade$$

Note that this indicator only estimates the maximum possibility of trade between the two countries relative to the actual trade. It does not take into account the supply side constraints that a country may face in producing and exporting a specific product (Division of Market Development (ITC) 2014). Here, products which have observed structural changes in their exports and products which have faced supply-side constraints and/or restricted market access are highlighted.

4.1.1. Cambodia

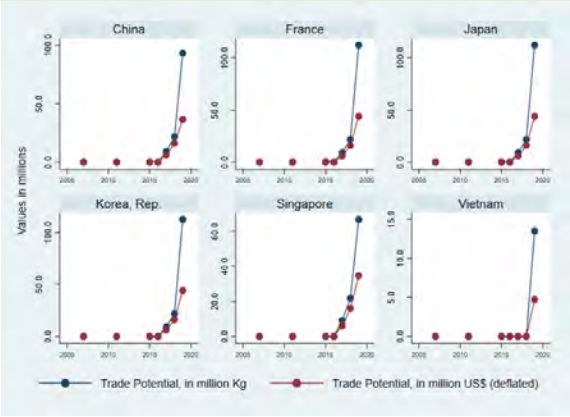
Rice, cane / beet sugar, and vegetables and fruits of Cambodia have witnessed exponential growth in their exports and export potential since 2010. It was mainly due to the ability of Cambodian exporters who met the requirement of sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) applied by EU, US, China, Malaysia, Thailand, Singapore, and Viet Nam (Ven 2017). In case of rice, establishment of quality standard by Cambodia led to international recognition and confidence from global buyers which led to the increase in export potential in Belgium, China, France, Gabon, Hong Kong, Malaysia, Netherlands, Poland, and the United Kingdom (UK).

Cambodia’s export potential in ‘Rice’ is growing in these countries after 2010 (Figure 4.1). This increase in export potential may be further harnessed by developing strategies to support exporters, and assisting them in analyzing the market trends which will facilitate

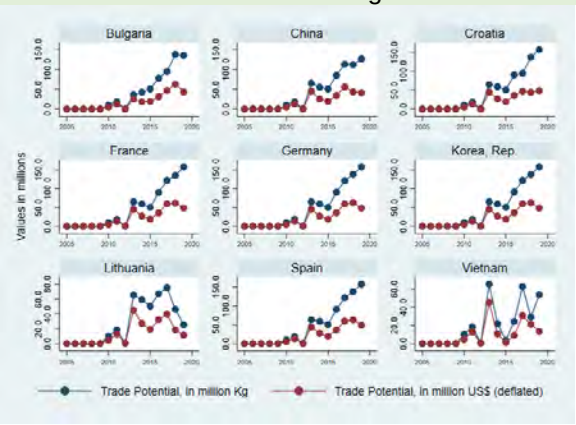
in enhancing the competitiveness of rice exports (International Finance Corporation 2015). Cambodia's export potential for palm oil and starches has been fluctuating, reflecting its limited supply capacity, while another reason for the fluctuation in exports and export potential of these commodities is the growing competition in main markets.

Figure 4.1: Export Potential of Cambodia

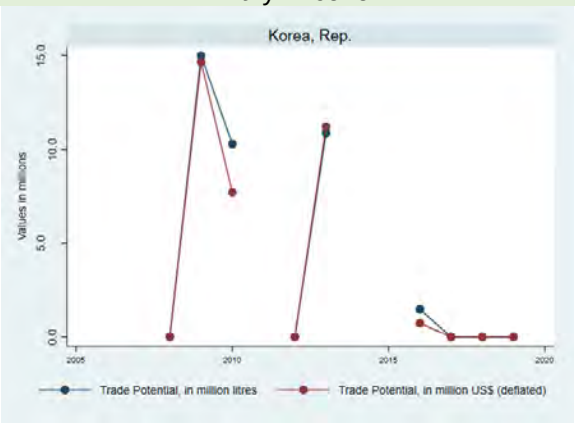
Bananas



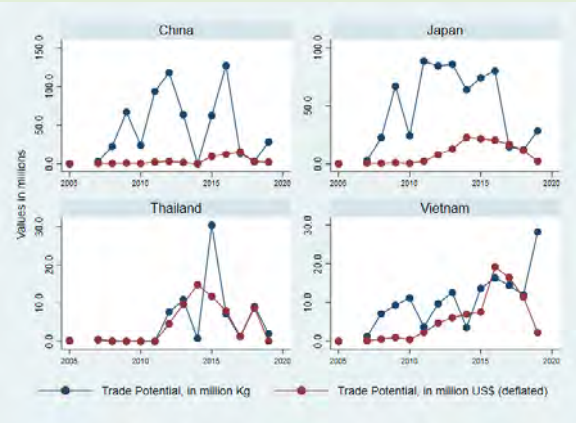
Cane / Beet Sugar



Ethyl Alcohol



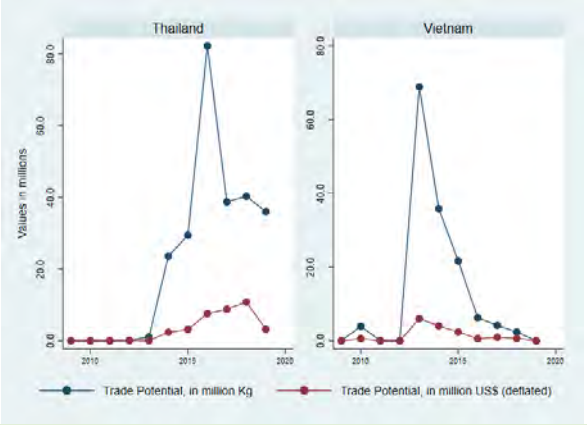
Manioc



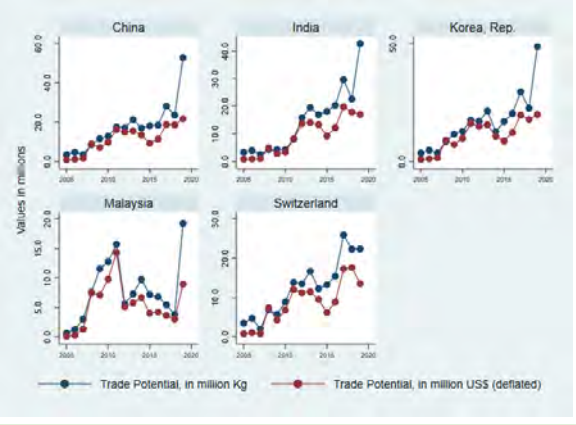
Molases

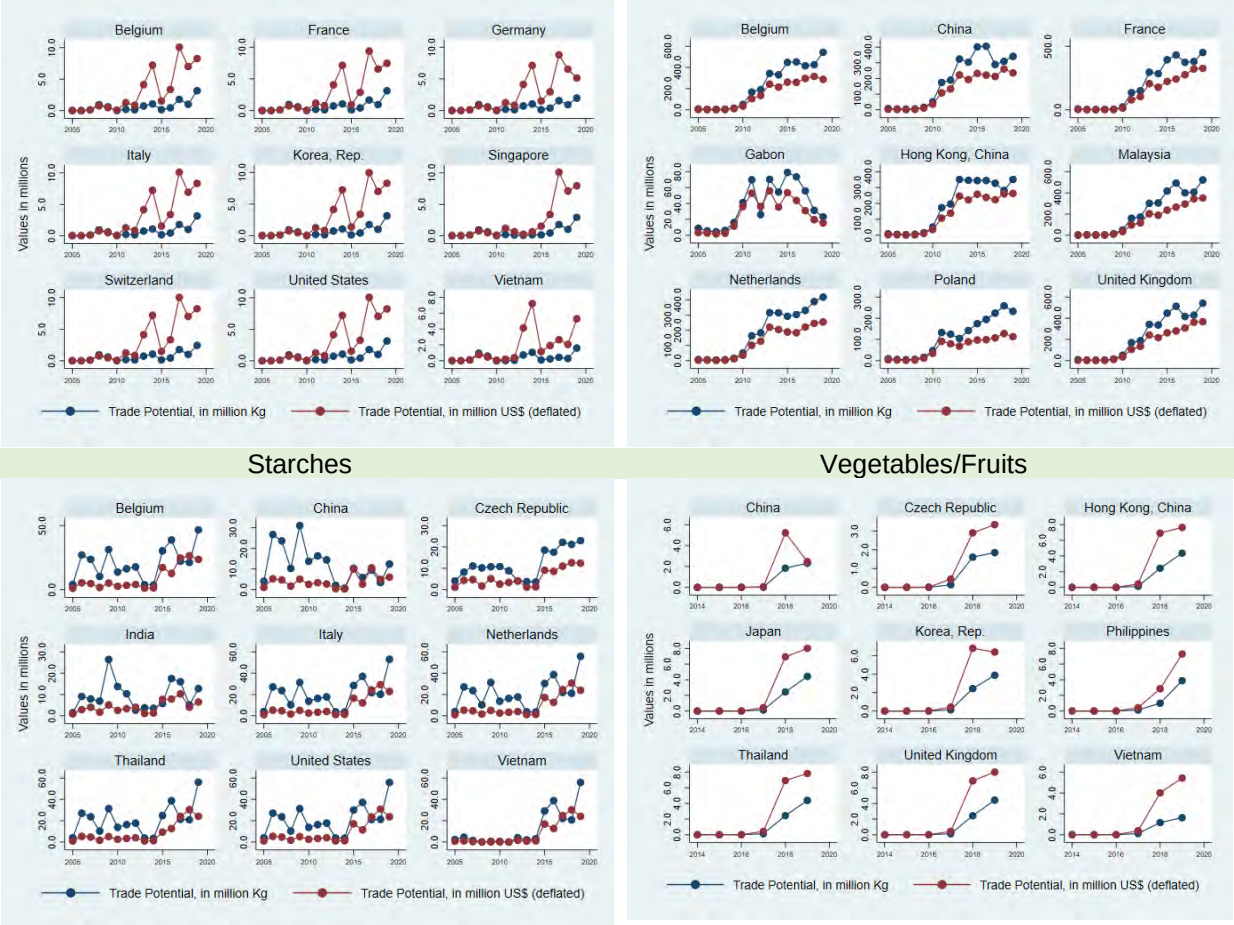
Palm Oil

Pepper



Rice

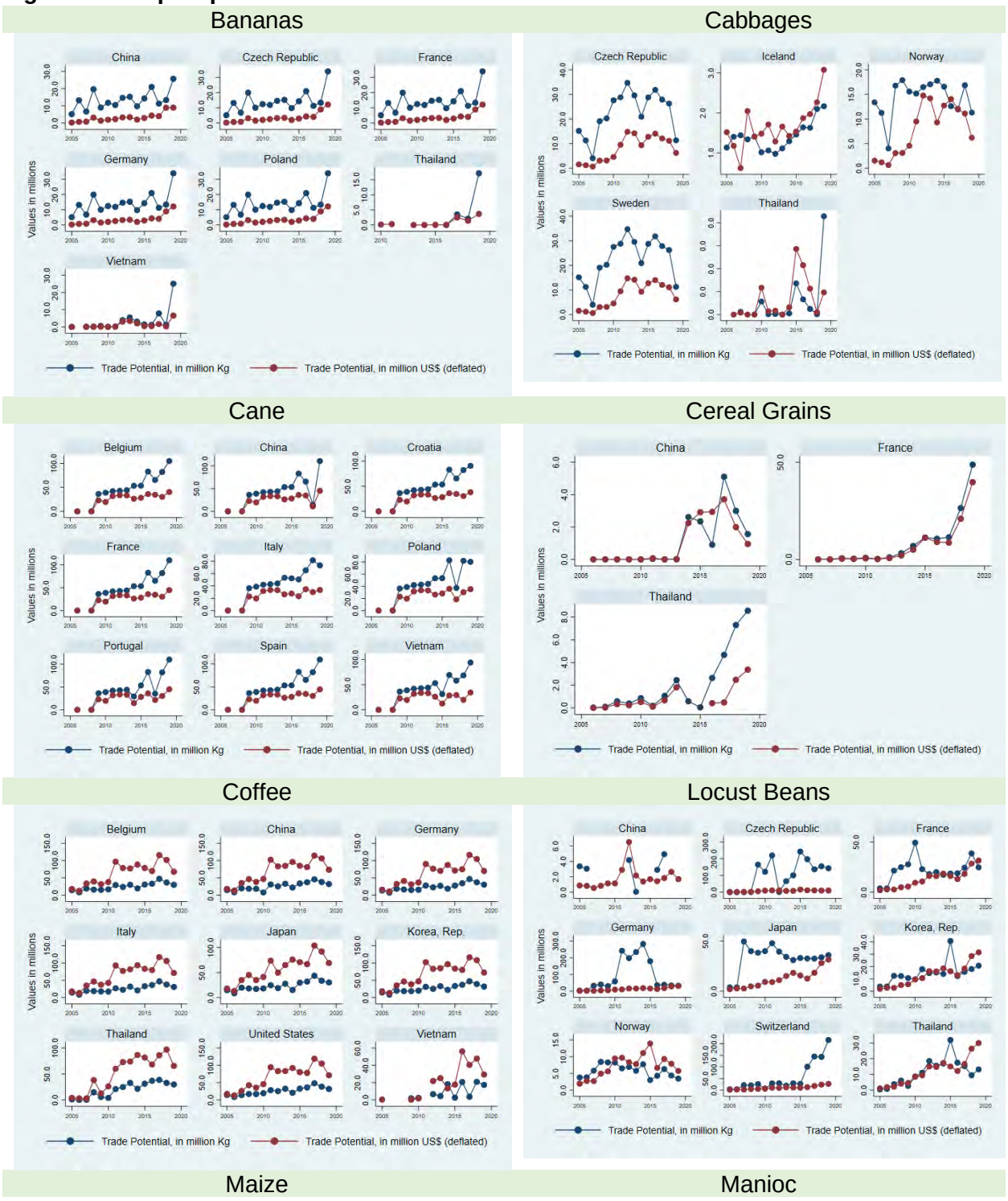


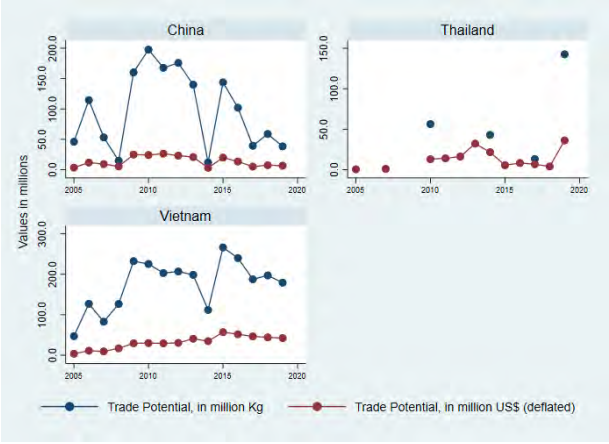


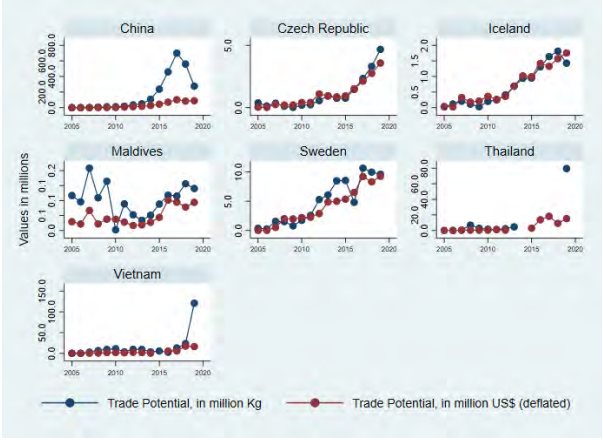
4.1.2. Laos

The export potential of Laos for bananas, cane, rice, and coffee increased significantly during the years 2005 to 2020. For rice, the exports increased significantly mainly to European countries and Viet Nam. Laos can move up the value chain in ASEAN markets in coffee since it has the potential to realize a higher price for the commodity (Figure 4.2). Laotian coffee also requires strong promotion to gain consumer confidence and recognition around the world, which will help Laos to compete with major exporters in important destinations (FAO 2016). Laos also has high export potential with EU and ASEAN for bananas and cane.

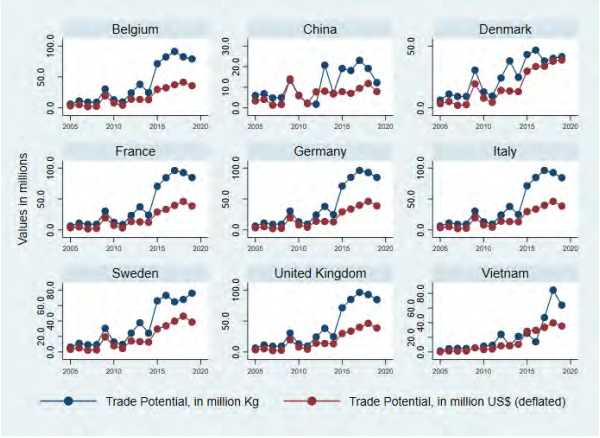
Figure 4.2: Export potential of Laos



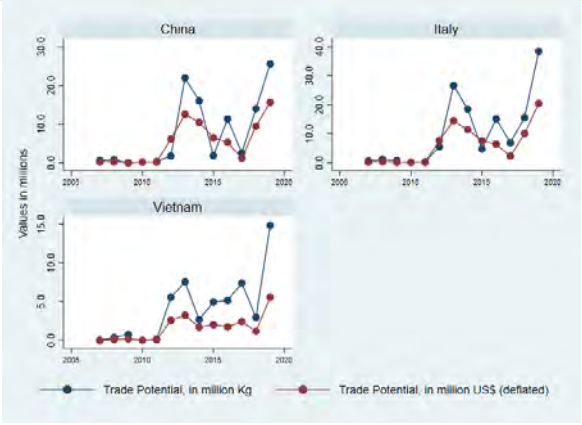




Rice



Starches



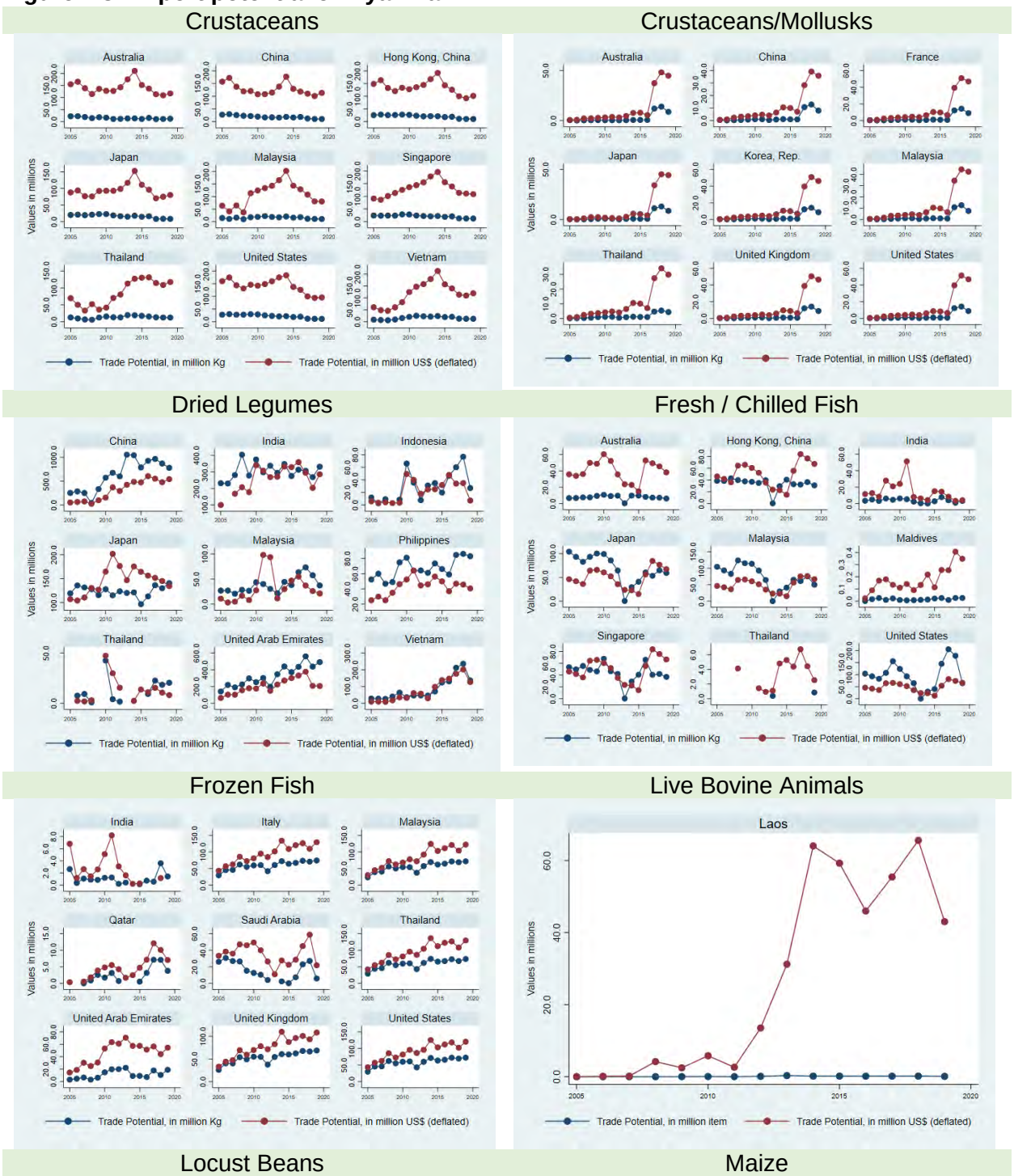
4.1.3. Myanmar

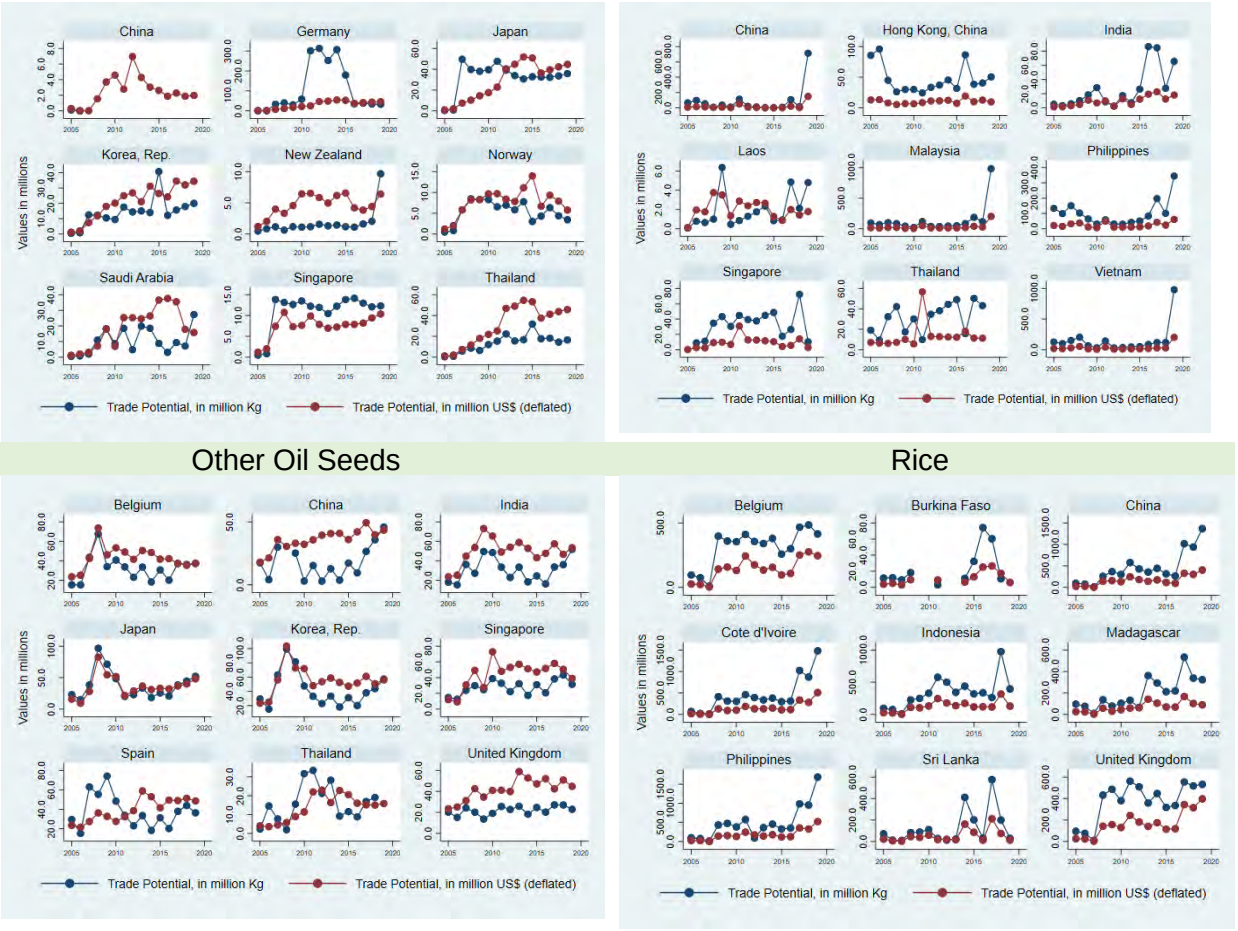
The export potential of Myanmar for locust beans and frozen fish grew in various markets, including China and Singapore. Both agricultural commodities remained competitive, which helped their exports grow at a compounded rate of around 30% and 7%, respectively, between TE 2007 and TE 2015 (Kim and Thunt 2017). Myanmar's export potential for frozen fish in terms of both value and quantity increased, whereas the potential for fresh fish declined over time (Figure 4.3).

Exports of fresh fish was adversely affected by sanctions imposed by US, EU, and other OECD countries which led to the decline in its exports and potential (UR 2012). However, regional integration within ASEAN facilitated Myanmar to cope with the effects of sanctions since fresh and frozen fishes were exported earlier to sanction imposing countries. Myanmar's export potential with Viet Nam for dried legumes has been increasing exponentially, where it has faced main competition from China. Myanmar have

a high potential in dried legumes for exporting to China where it mainly competes with Australia.

Figure 4.3: Export potential of Myanmar

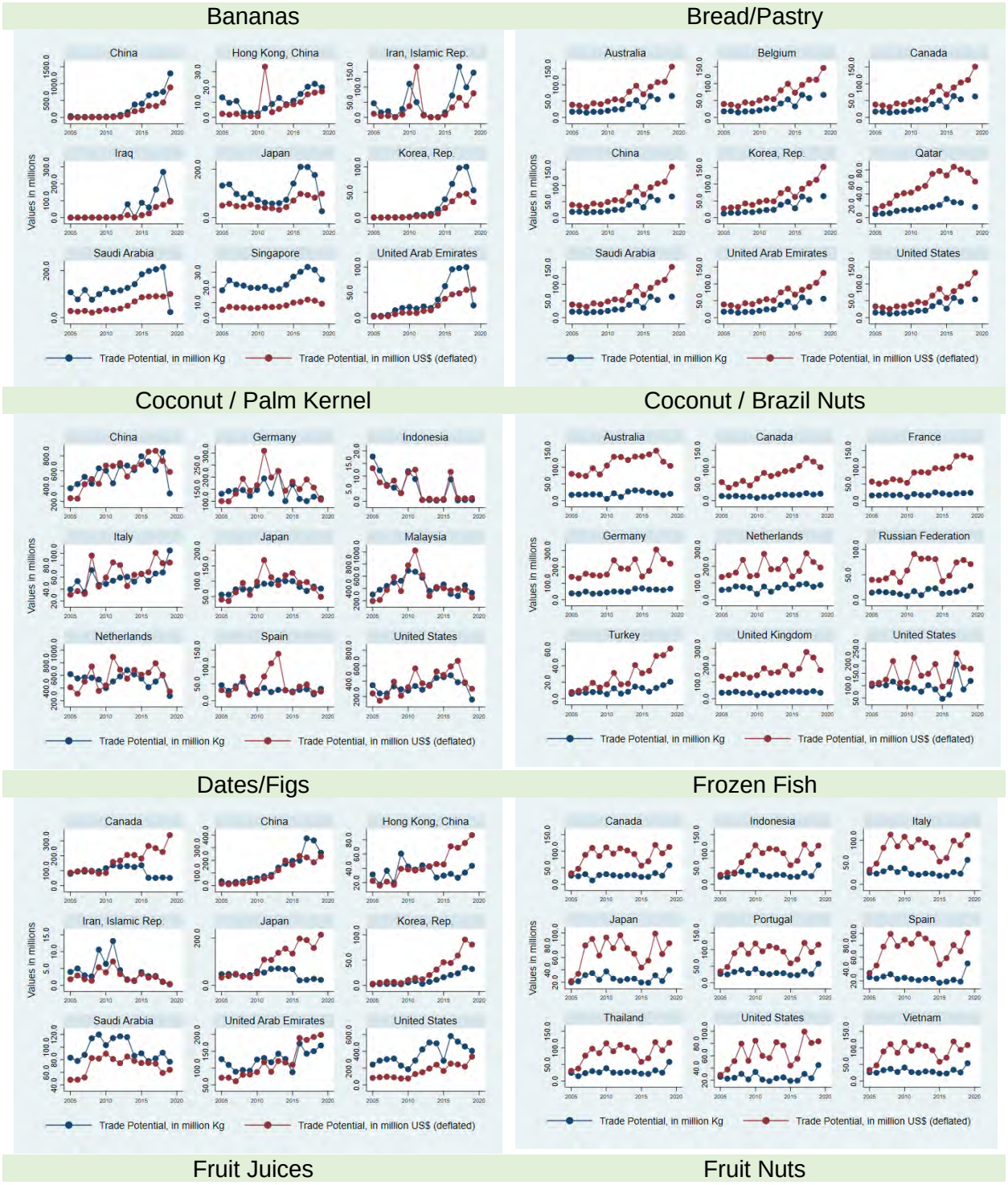


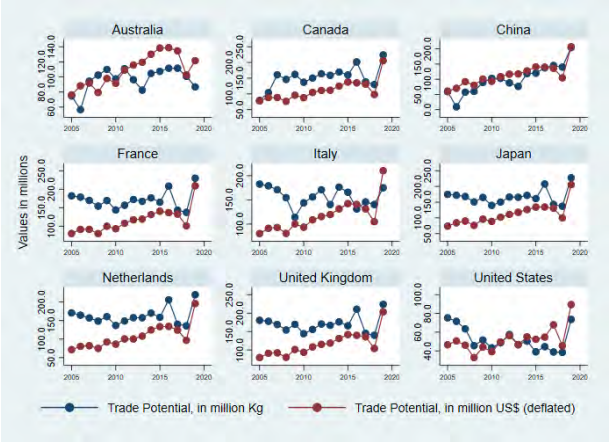


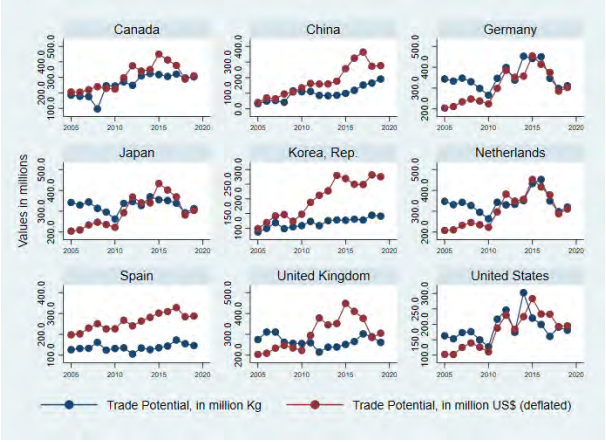
4.1.4. The Philippines

The Philippines' top exports are dominated by developed countries such as US, EU, and a few countries from the ASEAN region. However, products including bread/pastry, dates, preserved fish, and preserved fruits and nuts have high export potential. Export has increased in EU countries for preserved fish in 2010, and later it decreased due to the increase in average competition in ASEAN markets except Thailand. Similarly, for 'Dates', 'Bread/Pastry', and 'Preserved Fruit and Nuts', export potential has been increasing over time for almost all developed countries and ASEAN region (Figure 4.4).

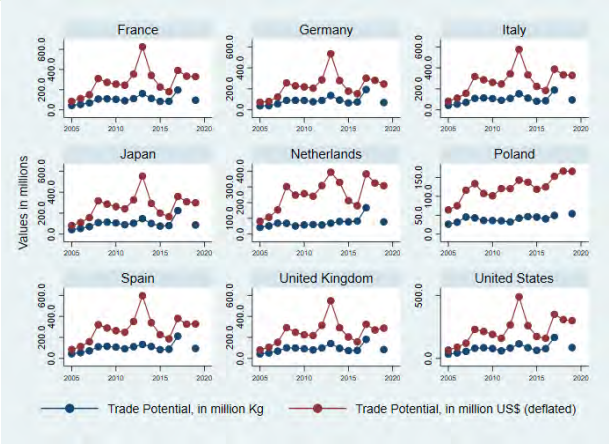
Figure 4.4: Export Potential of Philippines



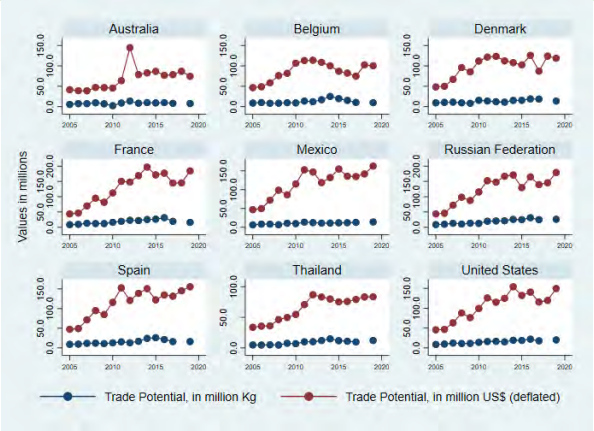




Prepared / Preserved Fish



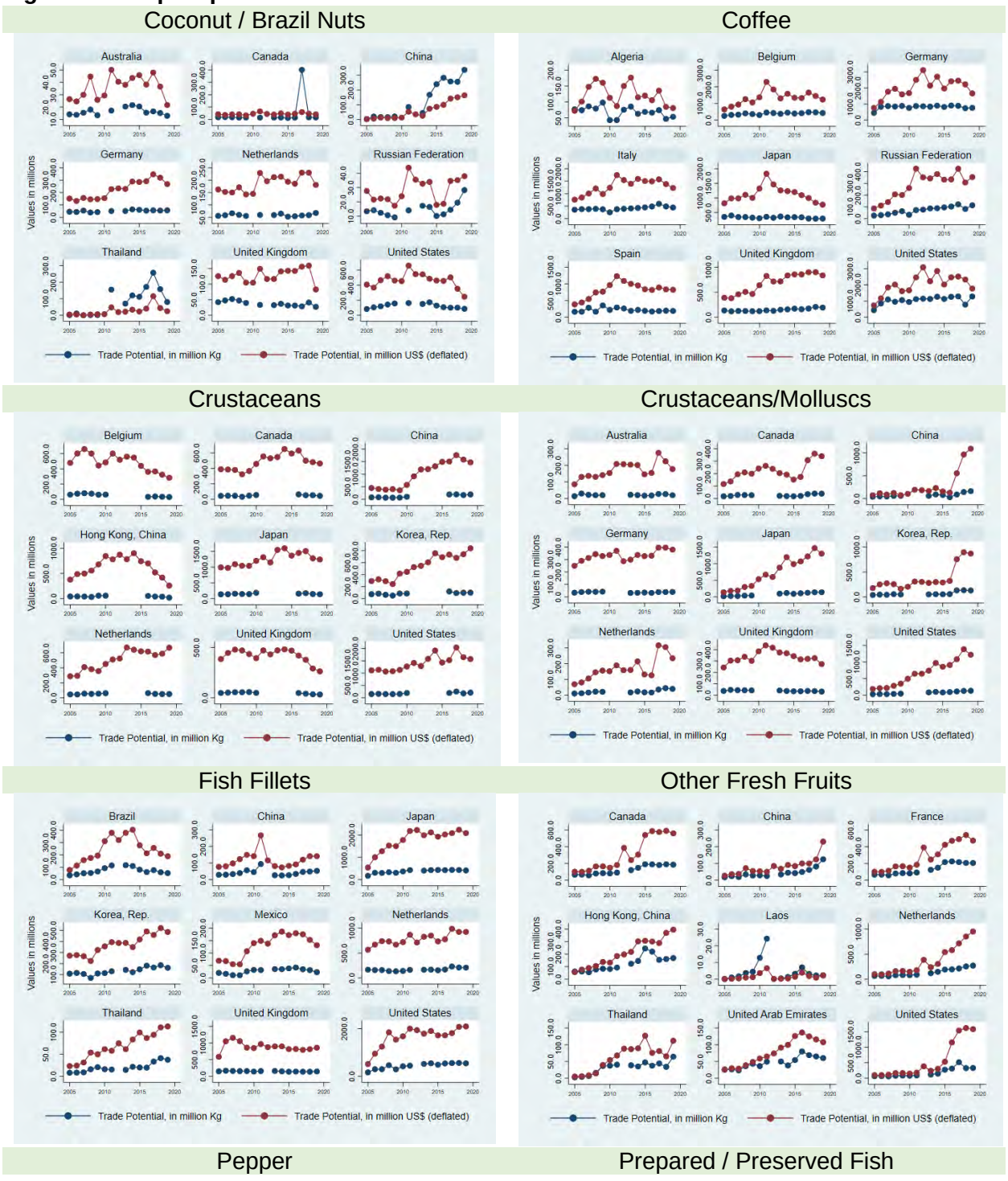
Vegetables Saps

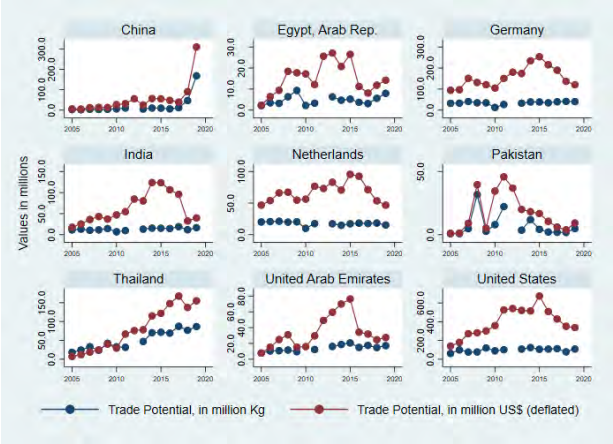


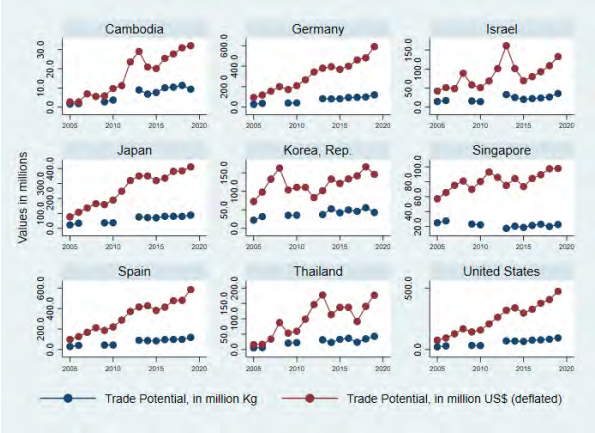
4.1.5. Viet Nam

Viet Nam has high potential with Indonesia, Malaysia, The Philippines, Singapore, and Thailand in products including coffee, fish fillets, pepper, and other fresh fruits. Viet Nam's competition for coffee and pepper in these markets is falling, implying that with easier access to market through integration, Viet Nam will be able to realize the export potential it has in ASEAN. In case of other fresh fruits, Viet Nam has the potential to move up the value chain and realize a higher price for fresh fruits, increasing competition notwithstanding (Figure 4.5).

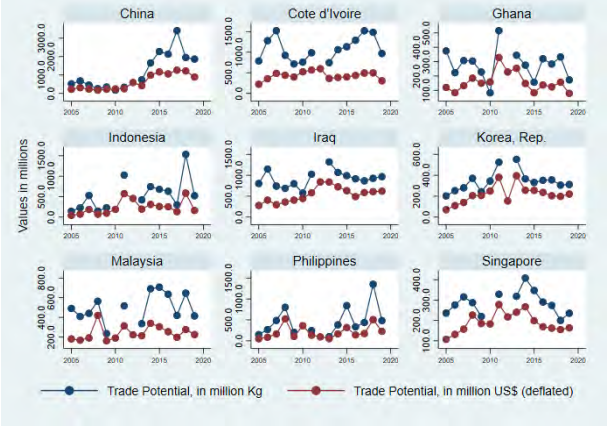
Figure 4.5: Export potential of Viet Nam



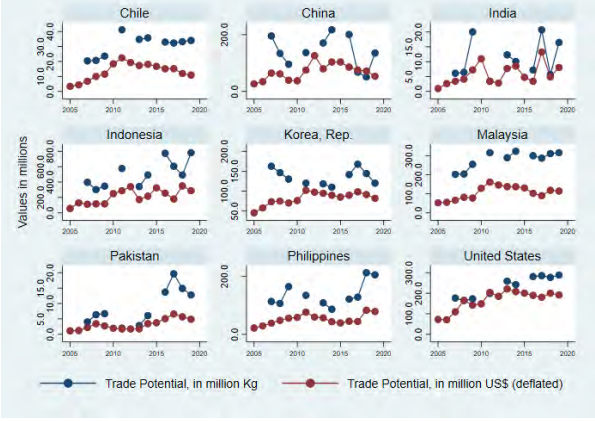




Rice



Starches



Differently from the others in CLMVP, Viet Nam and The Philippines observed reverse trend for products where trade potential in value increased (decreased) relatively more than potential in quantity. Agricultural products of Viet Nam and The Philippines have high potential in the demanding markets of EU, Japan, US, and Australia; however, both the countries face high rejection due to noncompliance with official regulations. Vietnamese Dragon Fruit, which is an important cash crop for small farmers, are exported without GlobalGAP certification to wholesale importers in the EU (but not to supermarkets), China, and other ASEAN countries. In China and other ASEAN countries like Indonesia, Vietnamese suppliers face the challenge of complying with the regulations and standards for food safety which makes it difficult to realize the trade potential (UNIDO 2015).

CLMVP faces some common challenges which prevent them in realizing their export potential and decelerates the process of integration. Some of these challenges are:

- Small landholdings of the farmers which limits the scale of production and reduces the competitiveness of the product
- High level of competition among CLMVP in common markets due to lack of linkages to regional agri-food value chains
- Limited technical knowledge among smallholders to comply with regulatory norms
- Limited financial resources and poor rural infrastructure which increases the transaction cost of the product
- Poor marketing and promotion of the commodity
- Restricted market access due to difficulty in compliance with official regulations in foreign markets
- Inadequate harmonization of product standards for agricultural products among ASEAN countries

CLMVP countries must adopt supportive agribusiness policies to realize export potential. Divanbeigi and Kayumova 2017, calculate 'Enabling the Business of Agriculture' (EBA) scores for East Asian countries. Viet Nam displayed the most supportive agribusiness regulations based on these EBA scores whereas Myanmar displayed the least. CLMVP do not perform well in terms of access to market and finance regulations, areas that deserve attention.

Trade opportunities emerging from market integration can help smallholders if CLMVP can successfully link its farmers with the regional value chains. Given the trade potential of products like rice, cassava, fish, molasses, bananas, coffee, and cane or beet sugar in ASEAN markets, it will be beneficial for CLMVP if value chains integrate across borders instead of competing in common markets.

4.2. Competition indices

The degree of competition is assessed and major competitors for CLMVP top exports in the ASEAN markets are identified in this section using CBI[3] and VBI.[4] This helps in identifying commodities for which CLMVP region competes with ASEAN and non-ASEAN countries. The focus is on the trend of average competition which CLMVP faces in ASEAN countries and identify the top 10 exports competitors in ASEAN and non-ASEAN countries.

As discussed in section 2 above, Cambodia exports top 10 commodities to major destinations such as China, Malaysia, Republic of Korea, Viet Nam, and some European and African countries. Whereas Cambodia majorly competes with Malaysia, Myanmar, Philippines, Thailand, and Viet Nam across top 10 products in ASEAN countries. In this section, the focus would only be on those commodities which contribute more than 75% in the total export, so as to get the real picture of competition/partners for major commodities.

4.2.1. Cambodia

The main product in Cambodia is “rice”, while Brunei and Viet Nam are the dominant importer countries in the ASEAN region. Cambodia majorly competes with India, Thailand, and Viet Nam in Brunei, whereas Myanmar, Thailand, and USA are the major competitors for Cambodia in Viet Nam (Figure 4.6). In Figure 4.6, an increase in CBI for Thailand from 0.17 in TE 2007 to 0.67 in TE 2019 means that the overlap of the number of exports within the 4-digit “rice” group has increased between Thailand and Cambodia.

On the other hand, an increase in VBI, which captures the competition with the dominant exporter in the importing market, that is, Thailand, has increased in Viet Nam’s rice market. Similarly, the CBI values for Malaysia and USA had increased in TE 2019 which suggests that the existence of these two countries was very rare in 2007 in Viet Nam rice market. However, the second important commodity for Cambodia is “cane” and Malaysia and Viet Nam are the dominant exporter countries in the ASEAN region (Figure 4.7). In

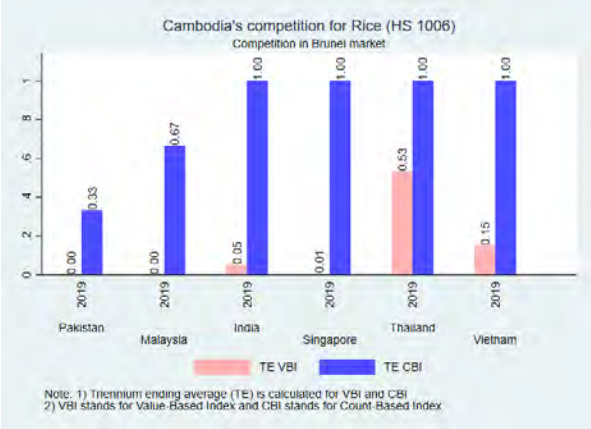
[3] In the importing country market, an increase in the value of CBI signifies that exporting country is competing with other exporters over more disaggregated products within a product group.
[4] captures the competition with the dominant exporters in the importing market based on export values.

the Malaysian cane market, China, India, Korea, Singapore, Thailand, and USA are the dominant exporter countries based on CBI. The existence of these countries in the cane market was negligible in 2007. Similarly, the major competitors in the Viet Nam cane market are China, India, Korea, Laos, and Thailand. The CBI value for these countries is 1.0, suggesting strong competition in the Viet Nam cane market for Cambodia.

The third important commodity for Cambodia is “starches” and these three commodities comprise more than 75% in exports. Malaysia, Thailand, and Viet Nam are the dominant exporter countries for starches in the ASEAN region. Indonesia, Singapore, Thailand, and Viet Nam are the prominent exporter countries for the Malaysian cane market. It has been observed that the CBI values of these countries had gone down from 1 in 2007 to 0.67 in 2019. The same has been observed in VBI as well, except in Viet Nam (Figure 4.8). However, US, Germany, Japan, and Malaysia are the dominant exporter countries in the Thailand starches market. The existence of these countries was not observed in 2007 and it became prominent exporter in recent years with high CBI values.

Laos and Thailand are the competitor exporter countries for Cambodia in the case of the Viet Nam starches market. The CBI value for Thailand remains constant at 1 from 2007 to 2019, which reflects the dominance of Thailand market in Viet Nam starches market. Laos, meanwhile, has become a competitor country for Cambodia in recent years. Cambodia has become a new vibrant market for the staple grain in ASEAN and exploring market opportunities in The Philippines.

Figure 4.6: Cambodia Competition Index for Rice Market in Brunei and Viet Nam



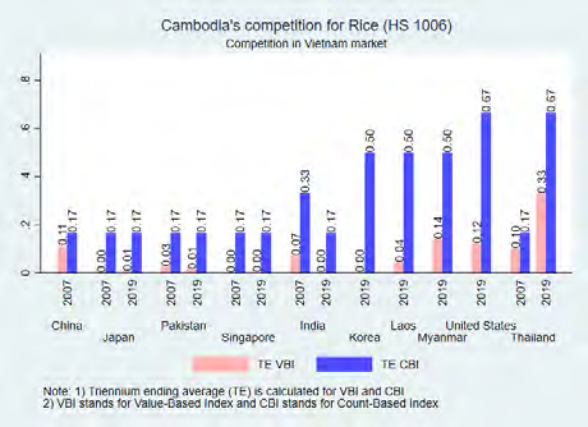
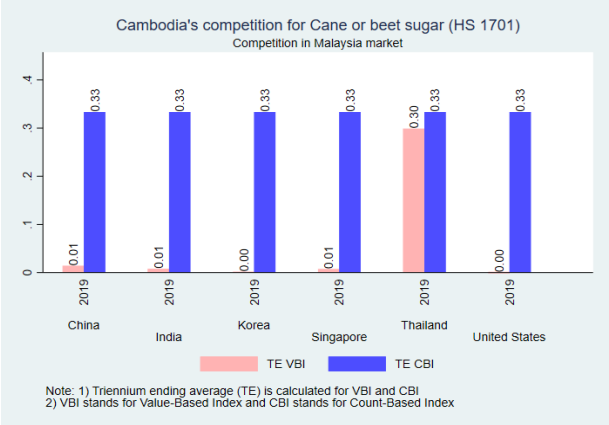


Figure 4.7: Cambodia Competition Index for Cane Market in Malaysia and Viet Nam



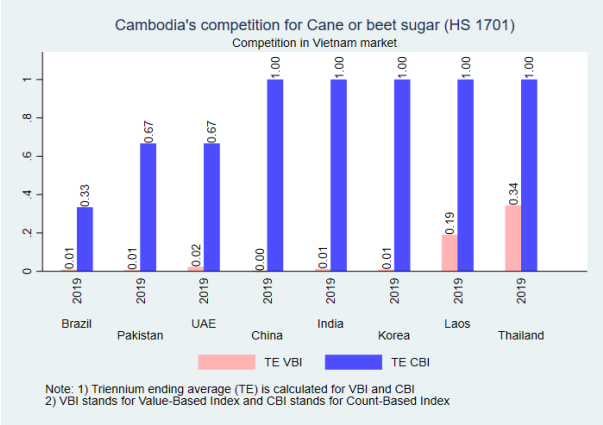
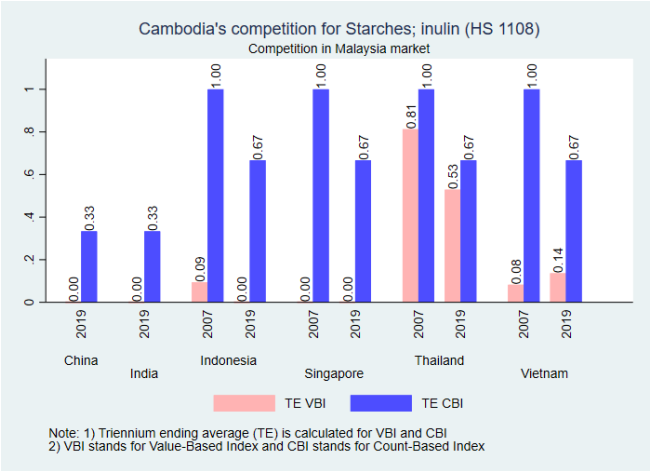
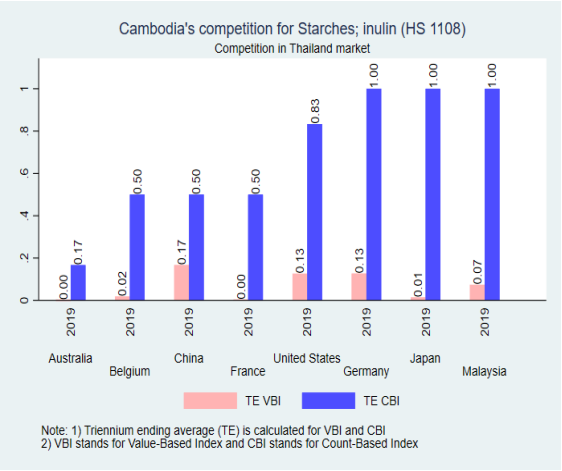
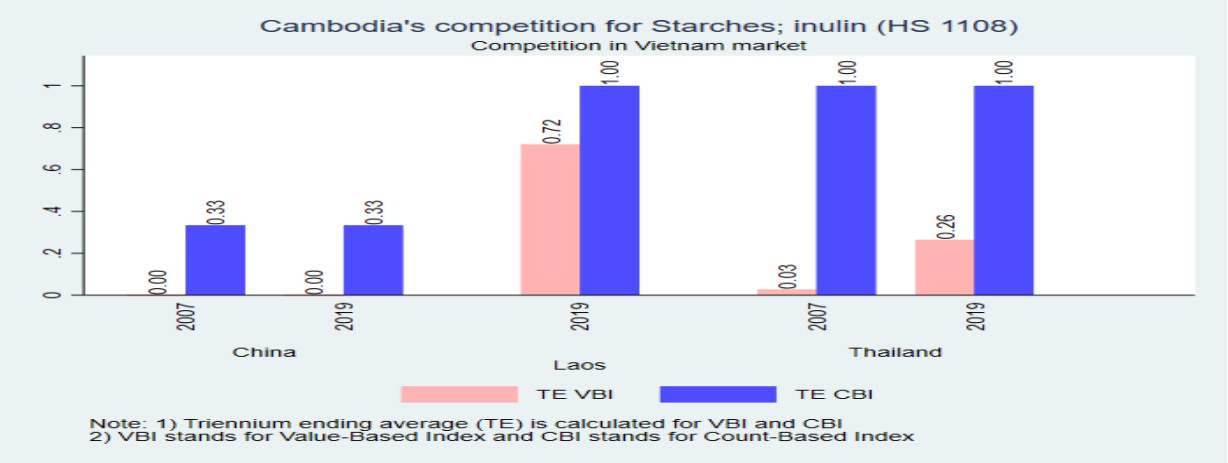


Figure 4.8: Cambodia Competition Index for Starches Market in Malaysia, Thailand, and Viet Nam





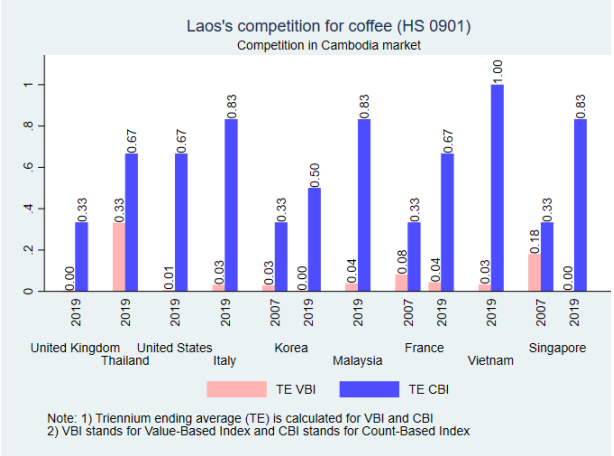


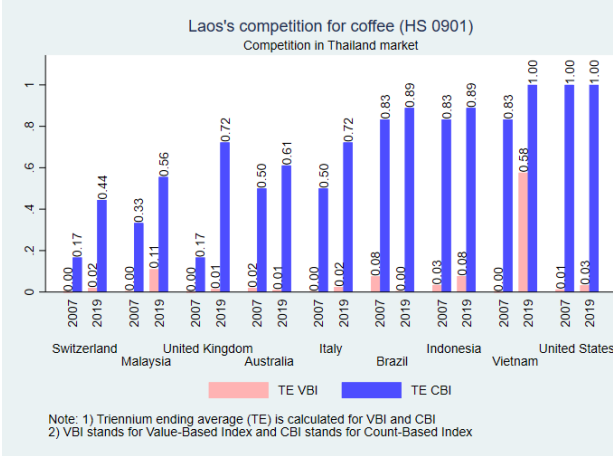
4.2.2. Laos

The main products in Laos are coffee, manioc, maize, rice, and cane, which contribute more than three-fourth of the export share. Cambodia and Thailand are the dominant exporter countries for coffee in the ASEAN region. Italy, Malaysia, Viet Nam, and Singapore are dominant exporter countries in the Cambodia coffee market based on CBI. The CBI value for Singapore had gone up from 0.33 in 2007 to 1 in 2019, but the VBI value had gone down.

However, rest of the dominant countries became more prominent in recent years and these countries are rendering greater competition to other countries in Cambodia's coffee market (Figure 4.9). Viet Nam, Malaysia, Singapore, Italy, Thailand and USA are the major competitors for Laos in Cambodia's coffee market. The CBI values for these competitor countries increased from 2007 to 2019, with marginal increase in the VBI values.

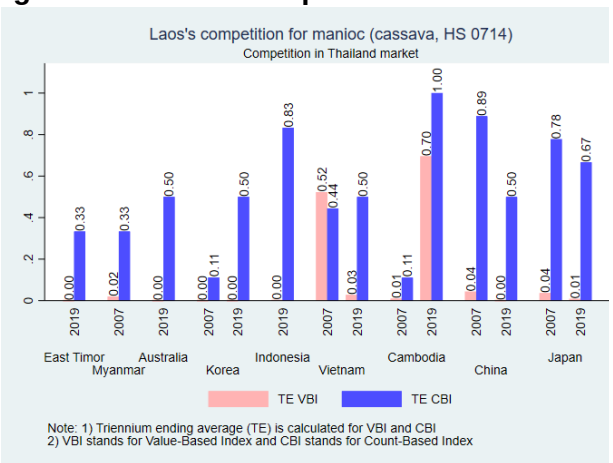
Figure 4.9: Laos Competition Index for Coffee Market in Cambodia and Thailand

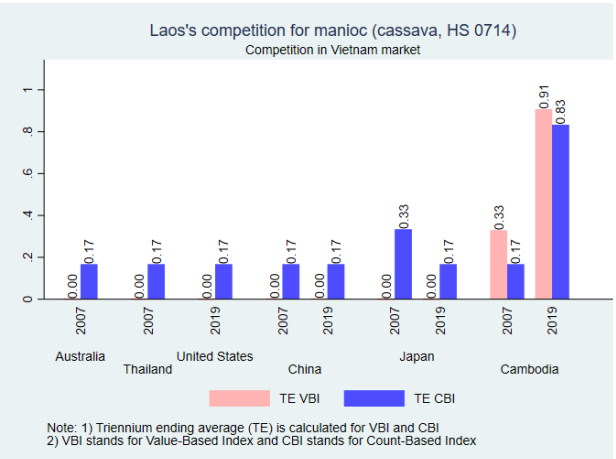




The second important commodity for Laos is manioc, and Thailand and Viet Nam are the important country for exports. In the Thailand manioc market, Indonesia, China, Cambodia, and Japan are major competitors for Laos. But the CBI values had gone down for China and Japan but increased for Cambodia, which reflects the strong competition given by the Cambodia. Correspondingly, the VBI value of Cambodia increased from 0.01 in 2007 to 0.70 in 2019 (Figure 4.10). Whereas in the Viet Nam manioc market, like Thailand, Cambodia is the major competitor for Laos and the CBI and VBI values had increased from 0.33 in 2007 to 0.91 in 2019 for VBI and 0.17 in 2007 to 0.83 in 2019 for CBI.. Laos can take some lessons from Cambodia and expand its horizon or explore more value addition in manioc.

Figure 4.10: Laos Competition Index for Manioc Market in Thailand and Viet Nam





The third and fourth important commodity for Laos are maize and canes, and like manioc, Thailand and Viet Nam are the major destinations. In the Thailand maize market, Argentina, Cambodia, South Africa, and USA are the major competitors for Laos. During 2007, Myanmar also was a competitor for Laos, but in 2019 the CBI value had gone down from 1 in 2007 to 0.33 in 2019. The existence of these countries in the cane market was very negligible in 2007 (Figure 4.11 and 4.12).

In Laos, Viet Nam is the major exporting country for cane. In Viet Nam cane market, the major competitor country is Thailand (CBI value is 1 in 2019), and some other countries such as Brazil, Australia, Germany, and Korea have 0.67 CBI value during 2019 (Figure 4.12). Therefore, Laos could diversify to other markets where there is higher export potential and integrate better within the value chain to cater to the ASEAN markets. Laos seems to have a great need to diversify its export basket because a slight increase in competition could have disproportionate effects in its smallholder-dominated system.

Figure 4.11: Laos Competition Index for Maize Market in Thailand

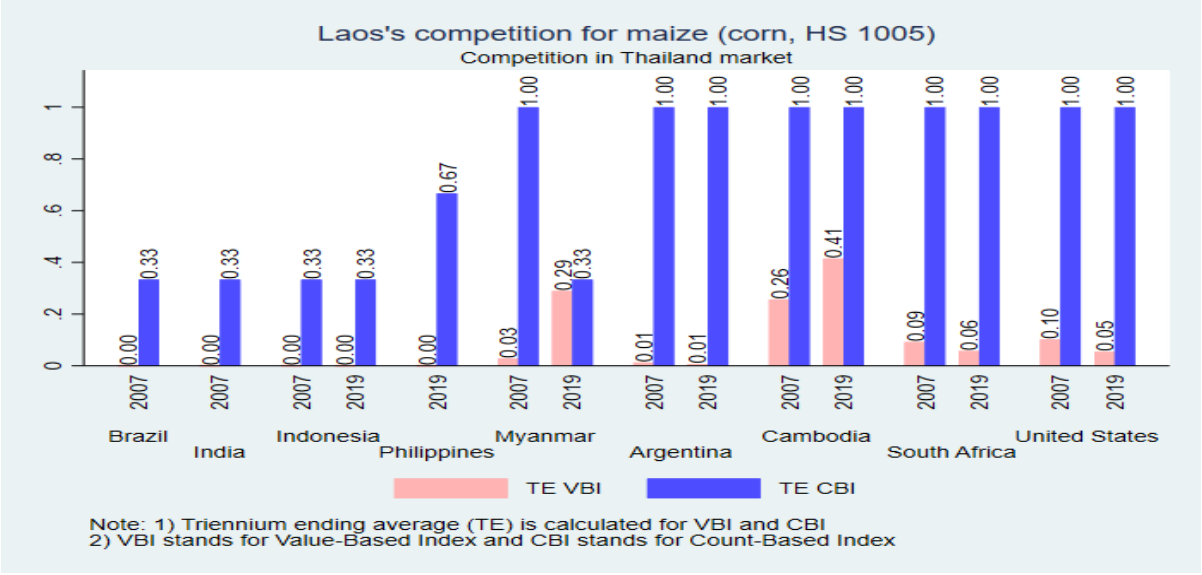
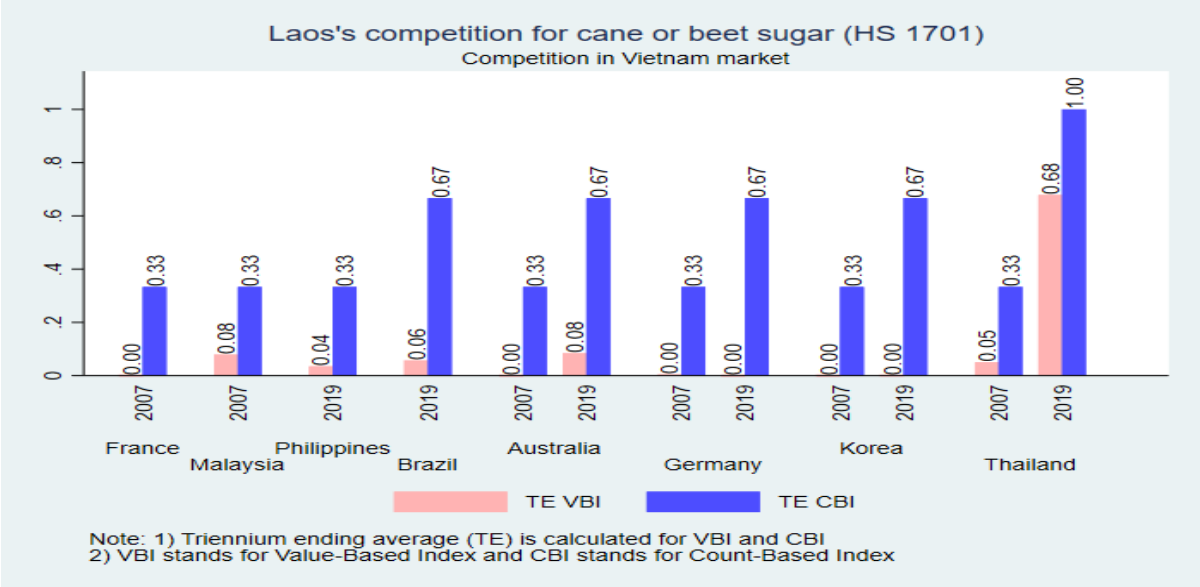


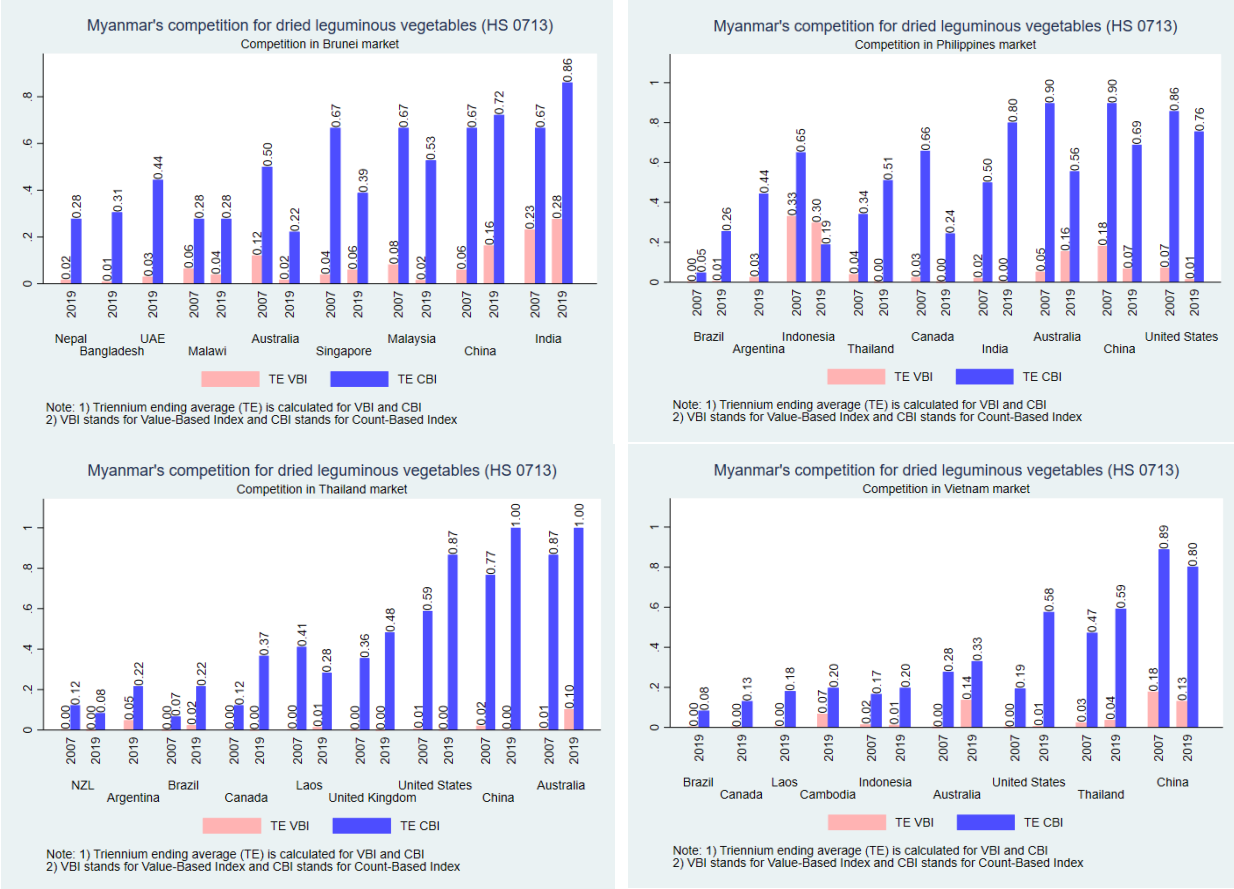
Figure 4.12: Laos Competition Index for Cane Market in Viet Nam



4.2.3. Myanmar

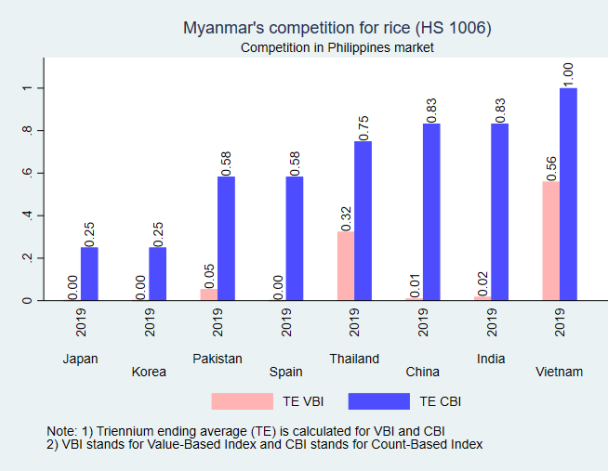
The main products in Myanmar are dried legumes, rice, frozen fish, and crustaceans, which contribute more than three-fourth of the export share. Brunei, The Philippines, Thailand, and Viet Nam are the dominant exporter countries in the ASEAN region for dried legumes. India and China are the dominant exporter countries based on CBI in the Brunei dried legumes market. The CBI value for India had gone up from 0.67 in 2007 to 0.86 in 2019 and correspondingly VBI value had also gone up. Whereas in The Philippines market, the CBI values had gone down from 2007 to 2019 for USA, China, Australia, Canada, and Indonesia, but on the other hand the CBI value increased for India and Thailand. In the case of Thailand dried legumes market, USA, China, and Australia CBI values increased between 2007 to 2019. For Viet Nam dried legumes market, the CBI values increased for USA and Thailand, but it went down for China during the same period (Figure 4.13).

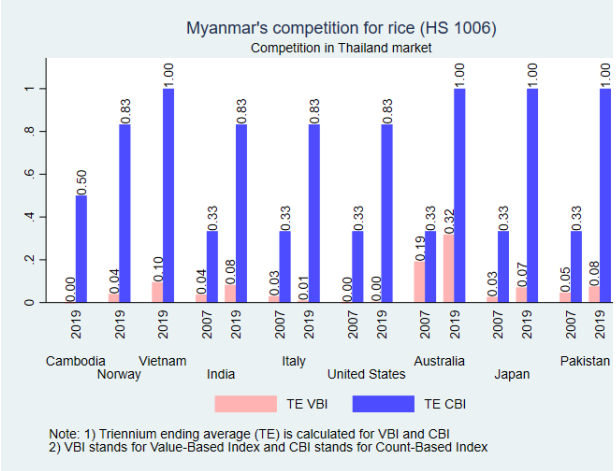
Figure 4.13: Myanmar Competition Index for Dried Legumes Market in Brunei, The Philippines, Thailand, and Viet Nam

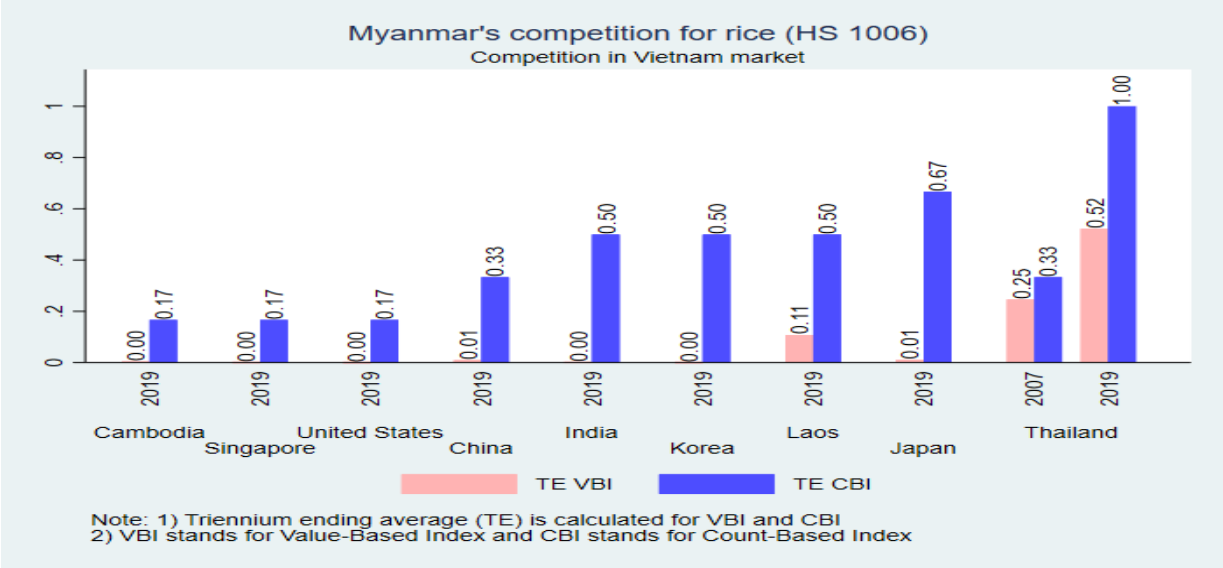


The second important commodity for Myanmar is rice and The Philippines, Thailand and Viet Nam are the important countries for export. Thailand, China, India, and Viet Nam are the major competitors in The Philippines rice market. These countries have become significant in recent years. Whereas, for Thailand, Viet Nam, Australia, Japan, and Pakistan CBI values is 1 in 2019. In addition to these countries, India, Italy, and Australia CBI values is 0.83 in 2019. It depicts that Thailand rice market is facing high competition from several countries. However, for Viet Nam rice market, the CBI value for Thailand had increased from 0.33 in 2007 to 1 in 2019 (Figure 4.14).

Figure 4.14: Myanmar Competition Index for Rice Market in The Philippines, Thailand, and Viet Nam





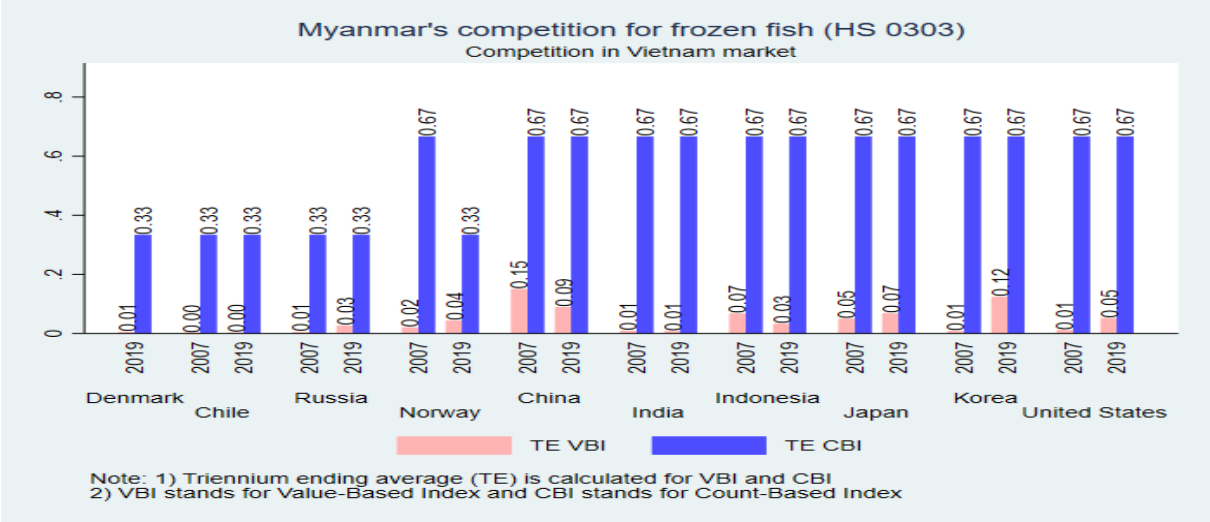


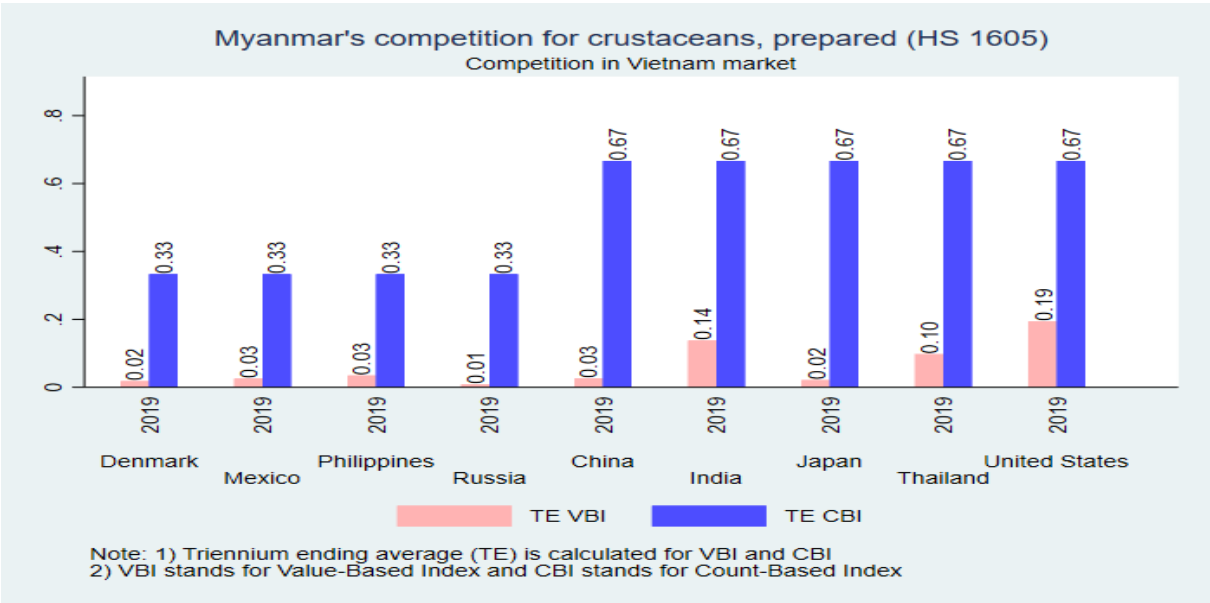
The third and fourth important commodities for Myanmar is frozen fish and crustaceans. Within ASEAN, Viet Nam is the important country for Myanmar in frozen fish as well as crustaceans. China, India, Indonesia, Japan, Korea, and USA are major competitors for the Viet Nam frozen fish market, but the CBI values have remained constant from 2007 to 2019.

Similarly, in the Viet Nam crustaceans market, the CBI value remains constant for China, India, Japan, Thailand, and USA for 2019. It reflects that Myanmar has been facing similar competition from the last 15 years in frozen fish and crustaceans markets (Figure 4.15). Therefore, integration with ASEAN can help Myanmar realize its trade potential of frozen fish since trade integration may lead to more competitive exports by Myanmar. Like Laos,

an increasing competition in China's market would possibly negatively affect Myanmar's farmers since China is the main destination for commodities.

Figure 4.15: Myanmar Competition Index for Frozen Fish and Crustaceans Market in Viet Nam





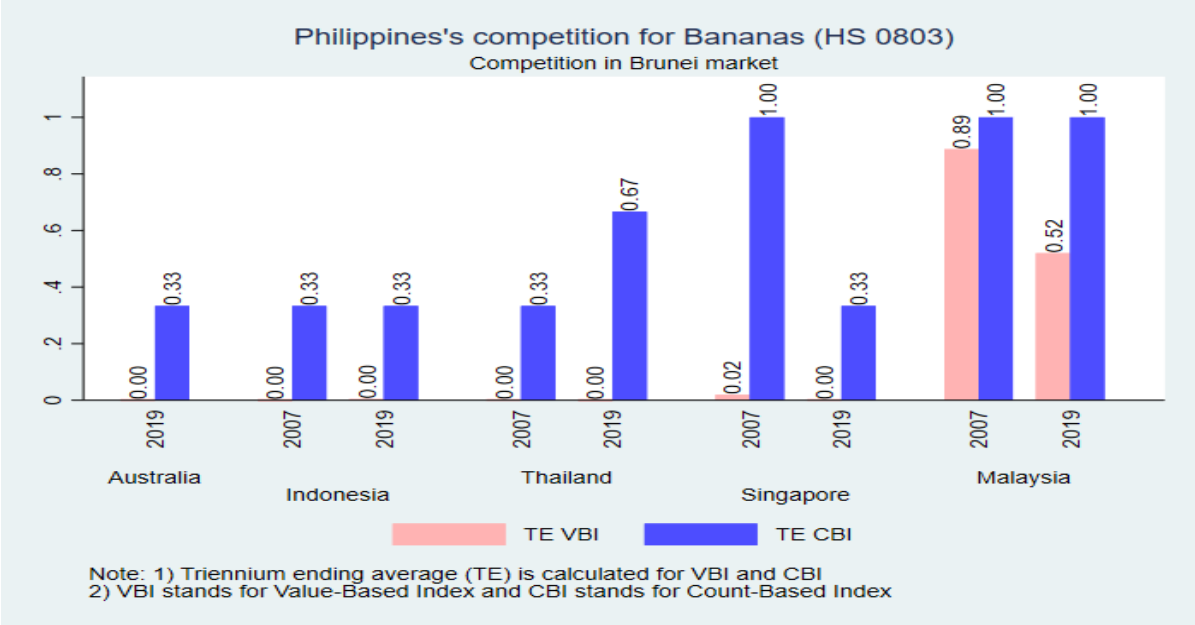
4.2.4. The Philippines

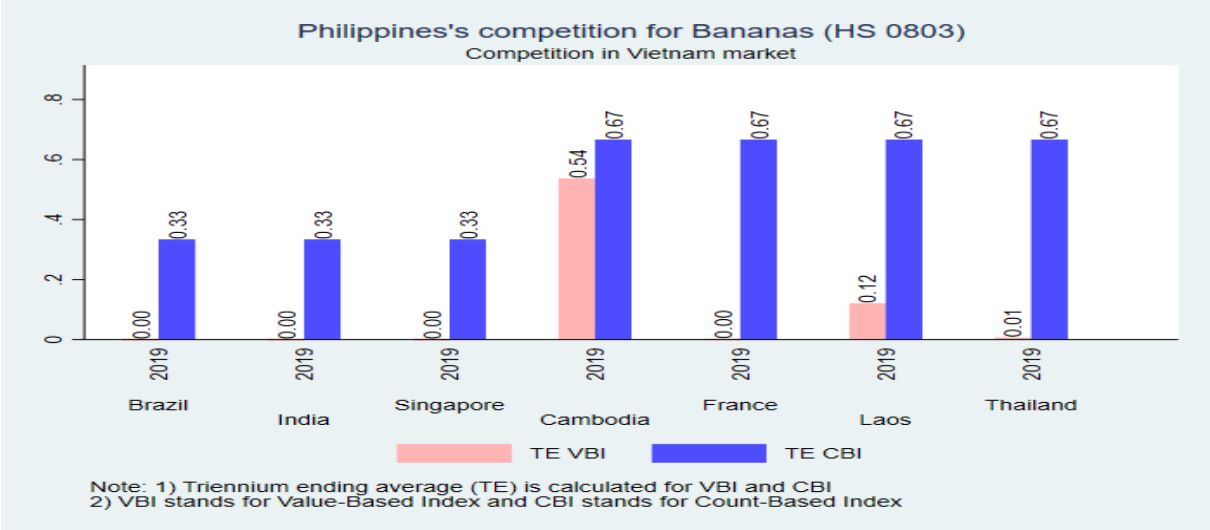
The primary products in The Philippines are bananas, coconut, preserved fish, and fruit and nuts, which together contribute more than two-third of the export share. For bananas, Brunei and Viet Nam are the dominant exporter countries in the ASEAN region. In Brunei, The Philippines majorly competes with Myanmar and Thailand. The CBI value for Thailand has increased from 0.33 in TE 2007 to 0.67 in TE 2019 but for Thailand the CBI

value remain constant during these periods. Eventually, the VBI for Thailand had gone down from 0.89 in 2007 to 0.52 in 2019 (Figure 4.16).

In recent years, the Philippines has been among the top five banana exporters in the world, and among the top ten in production, exporting around 3.5 million tons of bananas annually. In this scenario, few competitors have upper hand over The Philippines in the bananas market in ASEAN or elsewhere. Whereas, in Viet Nam's bananas market, Cambodia, France, Laos, and Thailand are the major competitors for The Philippines but these countries became significant recently and CBI value remains constant to 0.67 in 2019.

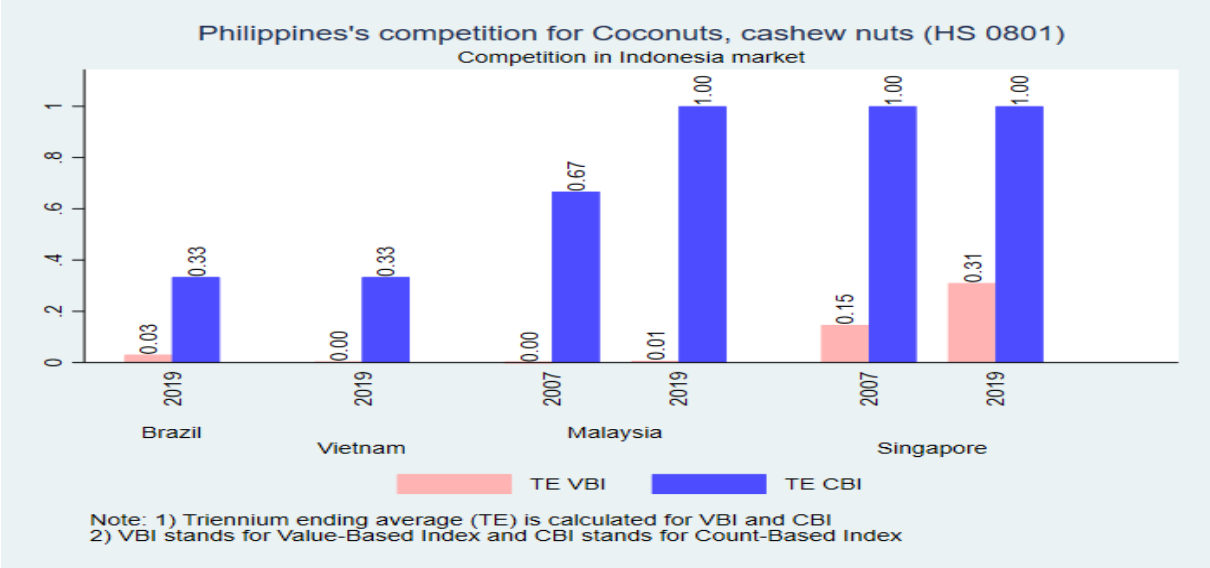
Figure 4.16: The Philippines Competition Index for Bananas Market in Brunei and Viet Nam





The second important product for The Philippines is coconut, with Indonesia being the major market in the ASEAN region. However, Malaysia and Singapore are the other two countries which dominate the market in Indonesia. The domination of Singapore in the coconut market has been relatively constant since 2007, but the CBI value for Malaysia increased in 2019 (Figure 4.17). In The Philippines, coconut sector successfully changed the structure of the coconut industry during the 1970's using a fund collected as coconut levies

Figure 4.17: The Philippines Competition Index for Coconut Market in Indonesia



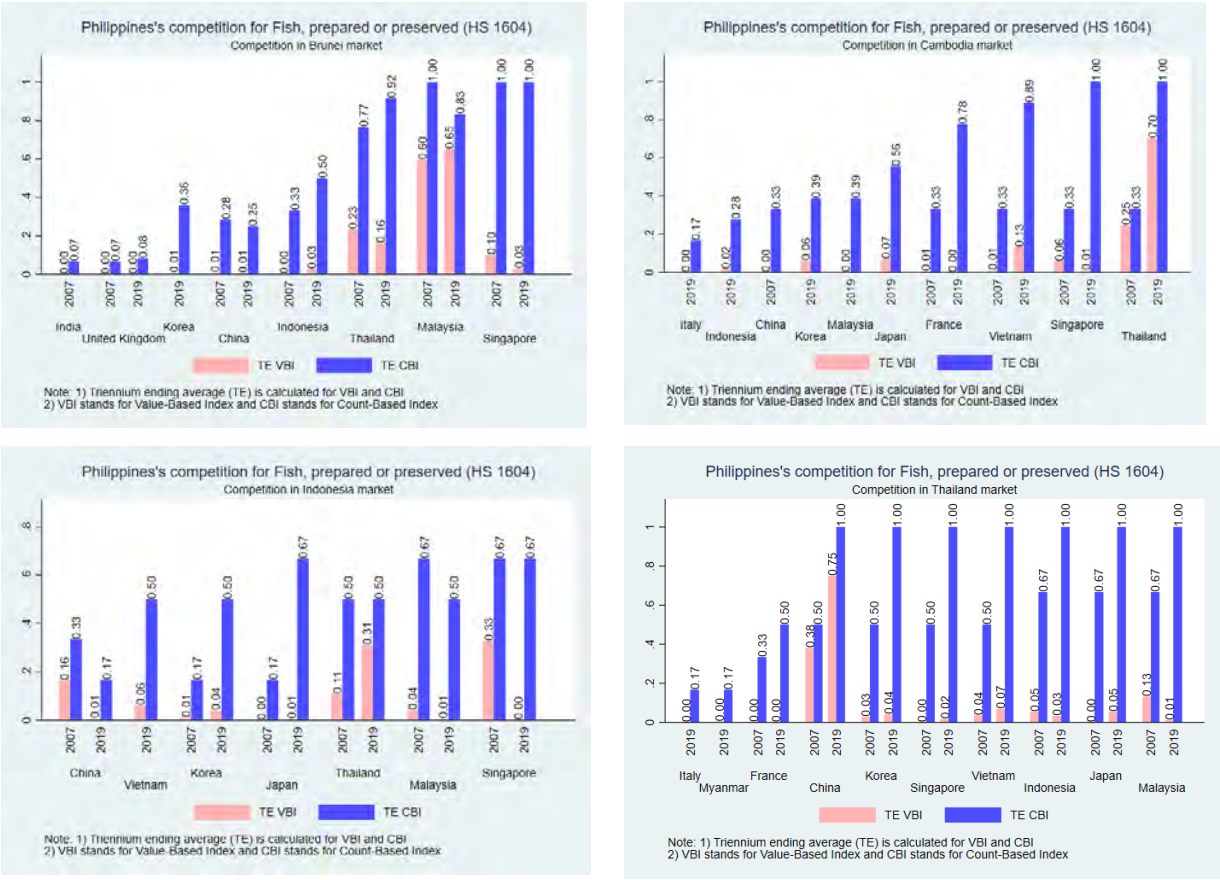
The third and fourth important product for The Philippines is preserved fish and fruit and nuts. For both the commodities of preserved fish and fruits and nuts, Brunei, Cambodia, Indonesia, and Thailand are the major competitors for The Philippines. In the Brunei preserved fish market, the CBI value for Indonesia, Thailand, and Singapore had increased between 2007 to 2019 period, but had gone down for Malaysia from 1 in 2007 to 0.83 in 2019. This reflects that Malaysia is facing strong competition from Indonesia and Thailand.

In the Cambodia preserved fish market, France, Viet Nam, Singapore, and Thailand have CBI values greater than 0.5 and made significant dominance post-2007. But other than these countries, some emerging countries such as Malaysia, Korea, China, Italy, and Indonesia are marking entry in the market and giving competition to Cambodia (Figure 4.18). The narrative for the Indonesian preserved fish market is slightly different from the previous two countries. Viet Nam, Korea, and Japan are the major dominant exporting countries in the market and their CBI values have increased between 2007 to 2019.

On the other hand, the CBI value had gone down for China and Malaysia, while the value remained constant for Thailand and Singapore. This reflects lot of fluctuation in competition in the Indonesian preserved fish market and gives upper hand to those countries. In the Thailand market for preserved fish, China, Korea, Singapore, Viet Nam,

Indonesia, Japan, and Malaysia are the main competitors and CBI value is 1 in 2019. These countries became dominant post-2007 and gained market momentum in Thailand.

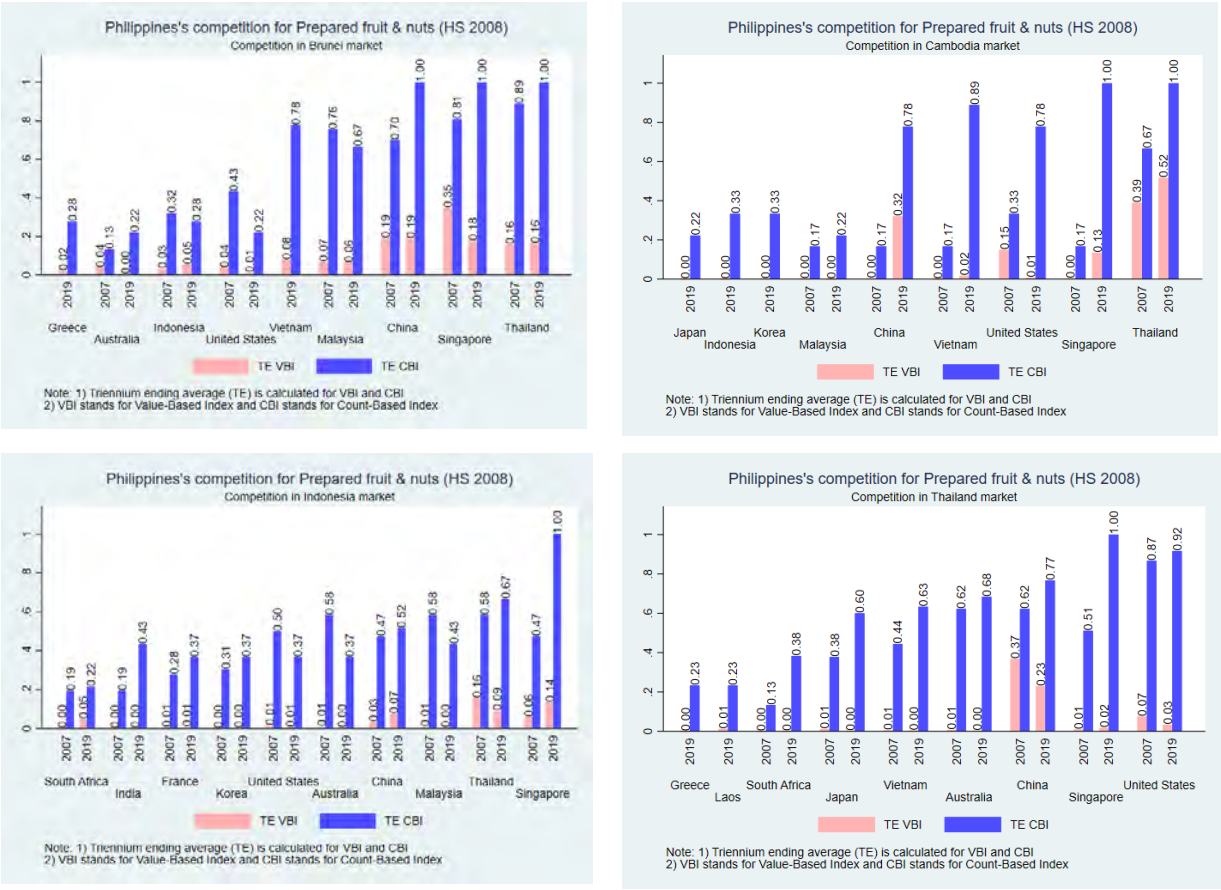
Figure 4.18: The Philippines Competition Index for Preserved Fish Market in Brunei, Cambodia, Indonesia, and Thailand



China, Singapore, Viet Nam, and Thailand are the main competitors for fruits and nuts in the Brunei market, with the CBI value for Malaysia and USA coming gone down during the 2007 to 2019 period. Whereas in the Cambodia fruits and nuts market, the CBI values of China, Viet Nam, USA, Singapore, and Thailand had increased significantly in 2019 from a very low base in 2007. This reflects the increase in penetration of countries and competitiveness. Similar penetrations were observed in the Indonesia fruits and nuts markets. The CBI values increased for several countries such as India, France, Korea, China, Thailand, and Singapore, while the CBI values for USA, Australia, and Malaysia went down. However, for Thailand fruits and nuts market, the CBI value of Japan, Viet

Nam, Australia, South Africa, China, Singapore, and USA had increased in 2019 and among these countries Singapore has CBI value is 1 (Figure 4.19).

Figure 4.19: The Philippines Competition Index for Fruits and Nuts Market in Brunei, Cambodia, Indonesia, and Thailand

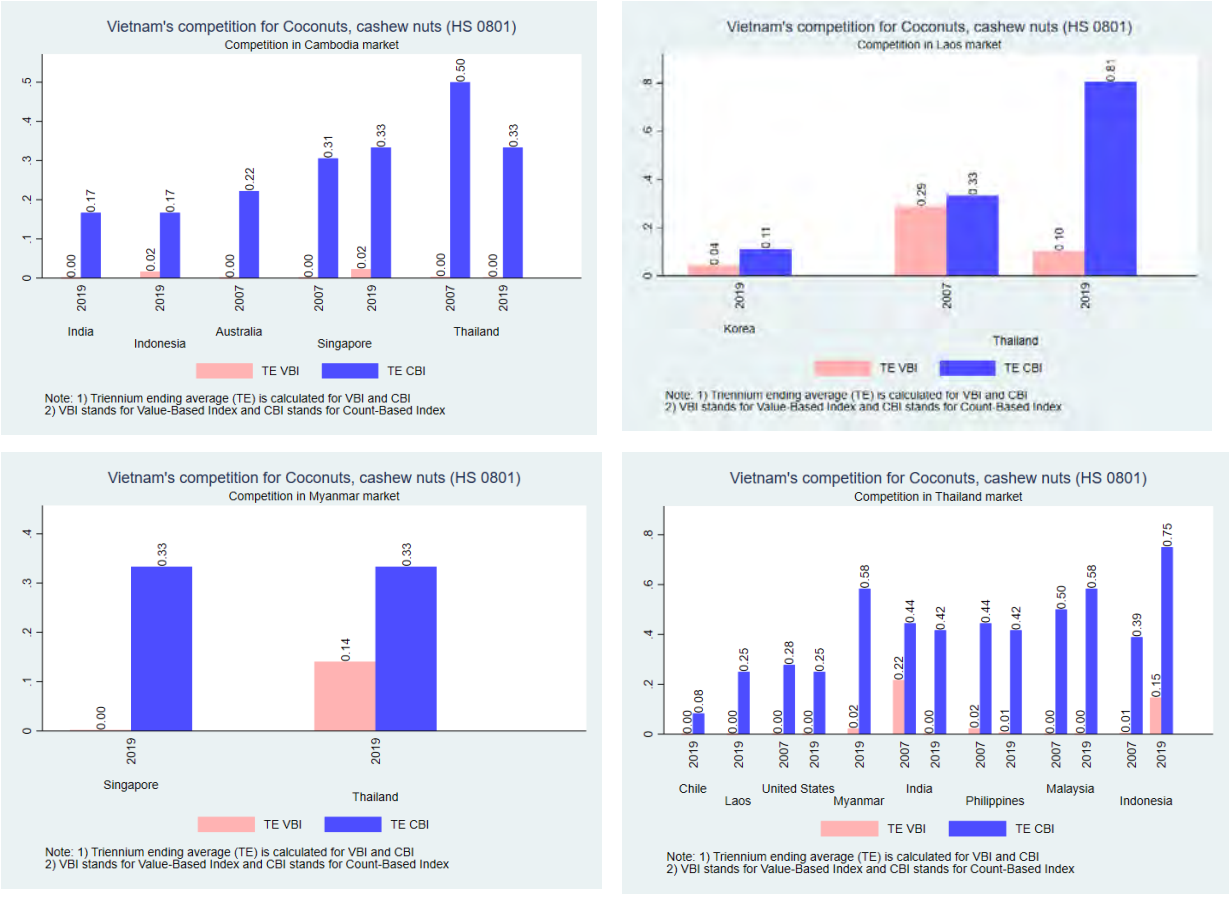


4.2.5. Viet Nam

Only Viet Nam has diversified its export basket in the ASEAN region, not being dependent on major commodities like other CLMVP countries. In Viet Nam, the top five products contribute on average more than 50% of its total exports. These top five are coconut, fish fillets, coffee, rice, and crustaceans. Cambodia, Laos, Myanmar, and Thailand are the major exporters in the coconut market. Some countries such as India, Indonesia, Australia, Singapore, and Thailand are emerging in the Cambodia coconut market, but at a very niche level.

The CBI value for these countries is below 0.33 in 2019, and except Singapore and Thailand none of the countries had an existence in 2007. Similarly in Laos market, only Thailand and Korea are the lead competitors, though Korea came into the picture during 2019 with a 0.11 CBI value and Thailand increased the CBI value from 0.33 in 2017 to 0.81 in 2019. However, the scenario for Myanmar coconut market, Singapore and Thailand came up in 2019 and both these countries were not exporting during 2007. In contrast, the Thailand coconut market had some level of competition among countries such as Myanmar, India, Philippines, Malaysia, and Indonesia, but India and Philippines CBI value almost remained constant from 2007 to 2019. However, only Indonesia had explored the coconut market in Thailand (Figure 4.20).

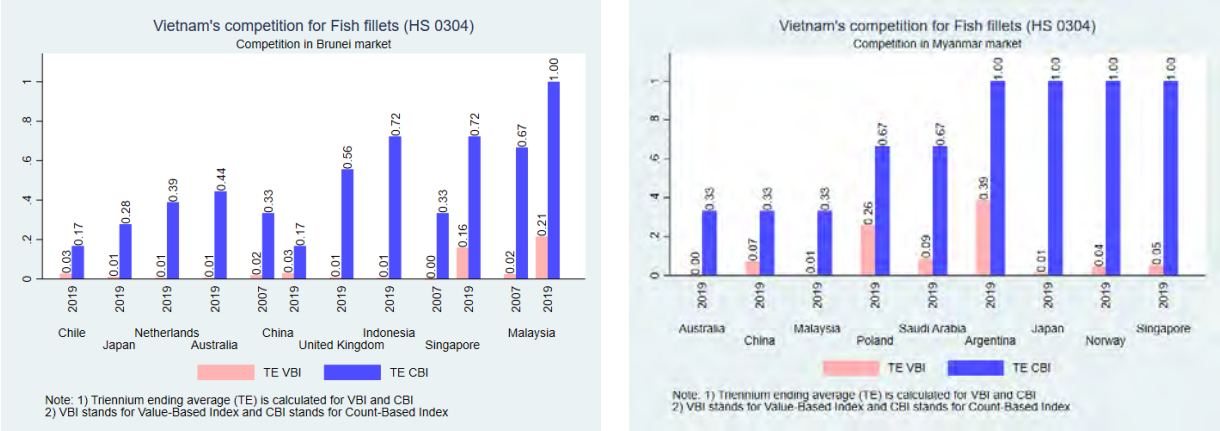
Figure 4.20: Viet Nam Competition Index for Coconut Market in Cambodia, Laos, Myanmar, and Thailand



The second important commodity for Viet Nam is fish fillets and Brunei and Myanmar are the major importing countries in the ASEAN region. In Brunei fish fillets market, UK,

Indonesia, Singapore, and Malaysia are the major competitors for Brunei in fish fillets market. UK and Indonesia recently emerged as an exporting competitor for Brunei and the CBI value for China had gone down in 2019 as compared to 2007. Meanwhile, several new countries emerged in the Myanmar fish fillets market during 2019, these being Argentina, Japan, Norway, and Singapore. The CBI value for these countries is 1 in 2019 and some other countries such as Australia, China, Malaysia, Poland, and Saudi Arabia are also giving competition to Myanmar (Figure 4.21).

Figure 4.21: Viet Nam Competition Index for Fish Fillets Market in Brunei and Myanmar

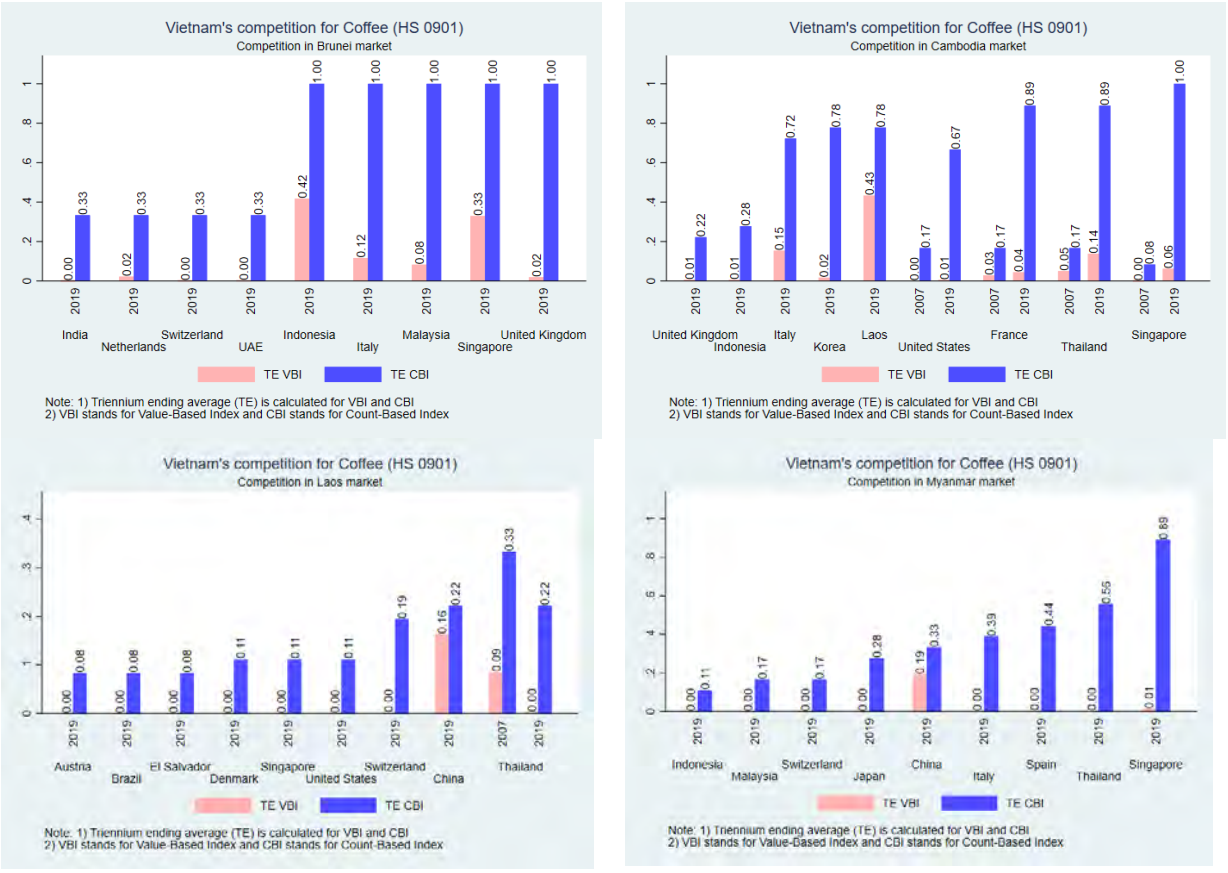


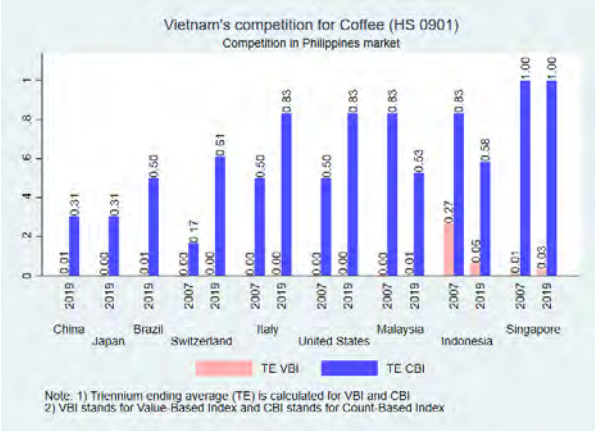
The third important commodity for Viet Nam is coffee. It is clearly observed in Figure 4.22 how six countries became important for Viet Nam in the coffee market. However, Indonesia, Italy, Malaysia, Singapore, and UK are the major competitors in the Brunei coffee market, and the CBI value of these countries is 1 in 2019 and have recently emerged as a competitor of Brunei. On the other hand, other countries such as India, Netherlands, Switzerland, and UAE have also gradually emerged in 2019.

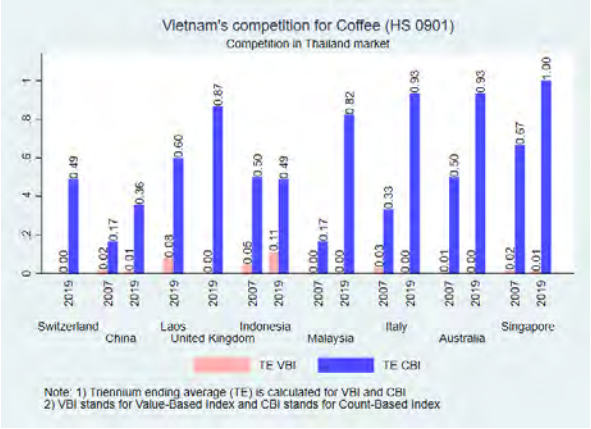
The major competition is from Singapore in the Cambodia coffee market, but other countries are also giving competition to Cambodia, such as France, Thailand, USA, Laos, Korea, and Italy. The CBI value for France and USA increased significantly in 2019 as compared to 2007. The third potential market of Viet Nam for coffee is Laos, the CBI value of China, Thailand, Switzerland, and others have less than 0.25 which reflects less competition faced by these countries in the Laos coffee market.

However, the CBI value of Thailand had gone down from 0.33 in 2007 to 0.22 in 2019. In the case of Myanmar coffee market, Singapore and Thailand have CBI values greater than 0.5 but other countries such as Spain, Italy and China have lower CBI score and face less competition in the Myanmar coffee market. However, the fifth country for Viet Nam's coffee export is The Philippines, and Singapore has been the dominant competitor for The Philippines since 2007. The CBI value of some other countries such as Switzerland, Italy, and USA had increased between 2007 to 2019, but it went down for Malaysia and Indonesia. In Viet Nam, Thailand is a major destination for coffee, with UK, Malaysia, Italy, Australia, and Singapore being the major competitors in the Thailand coffee market, and have gained momentum in recent period.

Figure 4.22: Viet Nam Competition Index for Coffee Market in Brunei, Cambodia, Laos, Myanmar, The Philippines, and Thailand

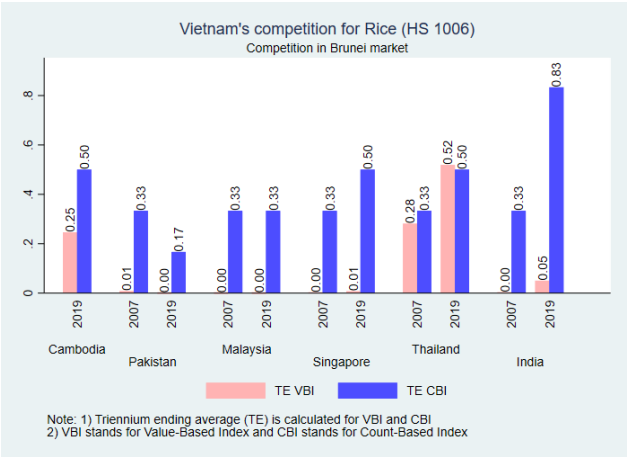


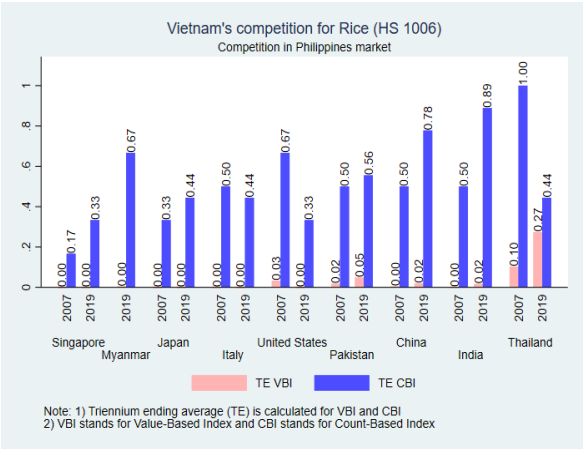


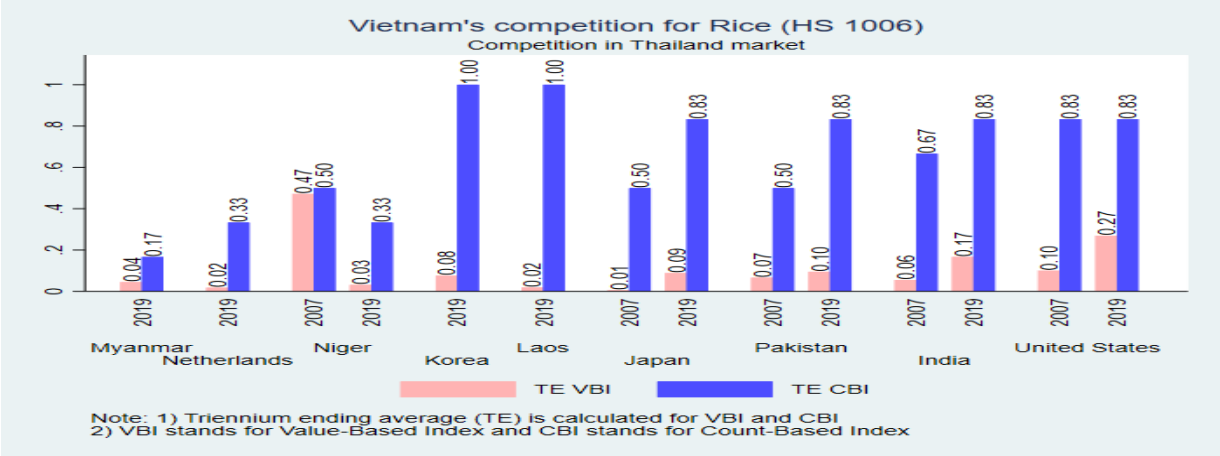


The fourth important commodity for Viet Nam is rice, with Brunei, Philippines, and Thailand being the major competitors. In Brunei rice market, the CBI value of India had increased from 0.33 in 2007 to 0.83 in 2019 . In addition, Thailand, Singapore, and Cambodia also give competition to Brunei. Like in Brunei, India is giving tight competition in The Philippines rice market, and the CBI value has increased from 0.50 in 2007 to 0.89 in 2019. On the other hand, the CBI value for Thailand had gone down from 1 in 2007 to 0.44 in 2019 and similar trend is observed for USA and Italy. The third major rice market for Viet Nam is Thailand and it reflects those new countries such as Korea and Laos have pitched in export market with CBI values at 1. While for Japan, Pakistan, India, and USA, the CBI is 0.83 in 2019 besides their existence since 2007 (Figure 4.23).

Figure 4.23: Viet Nam Competition Index for Rice Market in Brunei, The Philippines, and Thailand

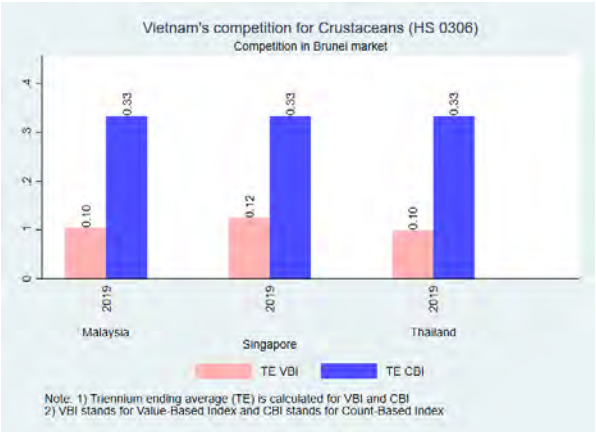


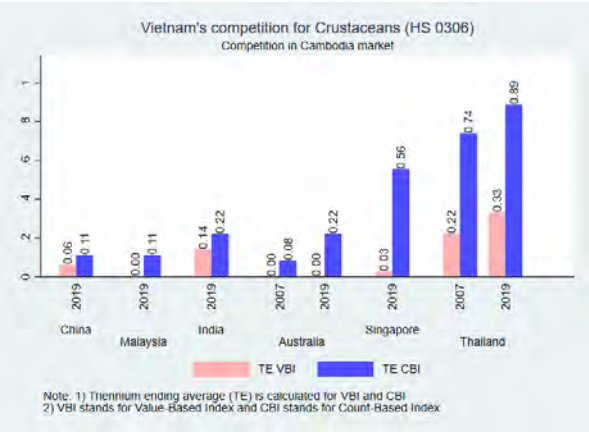


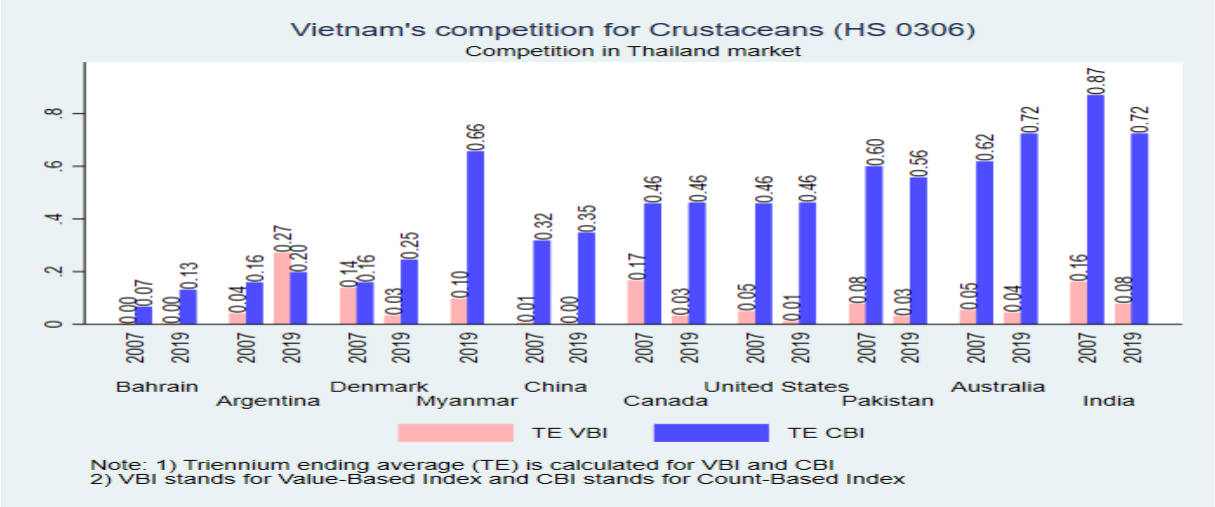


The fifth major commodity for Viet Nam is crustaceans, with major markets being the ASEAN nations of Brunei, Cambodia, and Thailand. Malaysia, Singapore, and Thailand recently came in the export market and are competing in the Brunei crustaceans' market in 2019. These countries were not in the picture in 2007. However, Thailand and Singapore are competing in the Cambodian crustaceans' market, and the CBI value of Thailand increased from 0.74 in 2007 to 0.89 in 2019, whereas Singapore is the competitor of Cambodia only in recent years. Lastly, several countries such as Canada, Australia, Pakistan, India, and USA are the major competitors in the Thailand crustaceans' market. The CBI value for Pakistan and India had marginally gone down from 2007 to 2019, while the CBI values for rest of the countries either remained same or increased gradually (Figure 4.24).

Figure 4.24: Viet Nam Competition Index for Crustaceans Market in Brunei, Cambodia, and Thailand






Vietnam's competition for Crustaceans (HS 0306)
Competition in Thailand market
0
.2
.4
.6
.8
0.00
0.07
0.00
0.13
0.04
0.16
0.27
0.20
0.14
0.16
0.03
0.25
0.10
0.66
0.01
0.32
0.00
0.35
0.17
0.46
0.03
0.46
0.05
0.46
0.01
0.46
0.08
0.60
0.03
0.56
0.05
0.62
0.04
0.72
0.16
0.87
0.08
0.72
2007
2019
Bahrain
Argentina
Denmark
Myanmar
China
Canada
United States
Pakistan
Australia
India
TE VBI
TE CBI
Note: 1) Triennium ending average (TE) is calculated for VBI and CBI
2) VBI stands for Value-Based Index and CBI stands for Count-Based Index

5. Results and Lessons Learned from the Country Analyses

“Competition Indices” and “Trade Potential” used in the analysis highlights potential products which can be the starting point for CLMVP to export and diversify. These potential products for Myanmar are dried legumes, rice, frozen fish, and crustaceans which contribute more than three-fourth of the export share. In Laos, coffee, manioc, maize, rice, and cane contributes more than three-fourth of the export share, whereas bananas, coconut, preserved fish, and fruits and nuts contribute more than two-third of the export share in The Philippines. However, only Viet Nam has diversified the export basket in the ASEAN region, and did not depend solely on major commodities like other CLMVP countries. The five primary products for Viet Nam are coconut, fish fillets, coffee, rice, and crustaceans.

Given its limited resources, CLMVP can consider these products and start exporting to ASEAN countries which will help CLMVP to further integrate with ASEAN. Moreover, this integration will lower the trade cost and regulatory compliance for CLMVP, which can provide a competitive edge to CLMVP over non-ASEAN competitors in ASEAN markets.

There is also scope for regional arrangements between ASEAN countries and CLMVP for some products in which ASEAN countries compete with each other. For instance, in the case of exports of locust beans to China’s market, Myanmar mainly competes with Lao PDR and Indonesia. For this product, Myanmar, Lao PDR, and Indonesia can integrate themselves into a regional value chain of locust beans and export together to China. This will help these countries in competing with non-ASEAN countries for a higher market share in big markets such as China. However, such regional arrangements are often difficult. One of the aspects of market integration is that it facilitates the formation of a single market between countries. Therefore, the possibility of such regional cooperation and production cannot be neglected.

To overcome the challenges of limited capacity of production, Myanmar has adopted the Agricultural Development Strategy (2018–2019 to 2022–2023). The adopted strategies

aim to augment the production supply of potential commodities, which will help Myanmar to export more to the potential markets.

CLMVP (except Viet Nam) can also learn and adopt policies from the experience of Viet Nam. Following the introduction of “Doi Moi” reforms and Integrated Pest Management, Viet Nam witnessed a significant increase in total rice production and yield (JICA 2013). These reforms included the following:

a) Dismantling the collective system and promoting family farming
b) Abolishing administered prices
c) Devaluing the exchange rate and exposing the agriculture sector to international prices

In recent times, along with rice, Viet Nam is one of the largest exporters of coffee, cashew, and black pepper. In 1990, however, Viet Nam did not produce either coffee, cashew, or black pepper. Viet Nam increased the production and exports of these commodities by providing targeted subsidies including value added tax exemptions and marketing related assistance (Arita and Dyck 2014).

Market integration is an effective way of linking CLMVP smallholders to ASEAN agricultural markets. It provides an opportunity to export more of its potential products and realize higher prices from ASEAN markets. Intensifying the integration will ease the access to ASEAN markets which will further facilitate in increasing the unit value of exports of dried legumes and beans, live bovine animals, preserved fruits and nuts, and other oilseeds in some of the ASEAN markets.

6. Quality Differentiation in Agricultural Exports of CLMVP Countries

Recent literature suggests that firms earn different levels of income across different markets for the same product they export (Manova and Zhang 2012). This reflects quality variation in the same product exported by firms to different markets. In this relation, we calculate the deflated unit value of exports in each market to provide an idea about the quality differentiation and scope of moving up the value chains. We derive deflated unit value to proxy the export price of a commodity by dividing the export value (deflated) by total quantity. Export price derived for 4-digit product is given as:

$$UV_g^{ijt} = \frac{Export\ Value_g^{ijt}}{Total\ Quantity_g^{ijt}}$$

where i is exporting country, j is the destination country, and UV_g^{ijt} is the export price of exporting country i in country j in time t for product g. Export prices are calculated to draw broad conclusions regarding the quality of the products exported to different and common destinations by exporting country.

Note that unit values are computed at an aggregate level and can differ from the firm level export prices. While calculating average prices, we identified and removed outliers by classifying them into two groups: i) Reporter, Product, and Time; and ii) Reporter, Product, and Partner. Trends in the unit values of top four global export items of CLMVP countries are defined below.

Figure 6.1 shows that the trends in the unit value of almost all the top four exports of Cambodia are either fluctuating or falling in the global markets in 2019, except for cane or beet sugar which started rising since 2018. For Lao PDR, it shows that the trends in the unit value of almost all the top four exports of the country are either fluctuating or falling in the global markets (Figure 6.2).

Whereas for Myanmar the figure shows that the trends in the unit value of almost all the top four exports of Myanmar are either fluctuating or rising in the global markets (Figure 6.3). In Figure 6.4 it shows that the trends in the unit value of almost all the top four exports of The Philippines are either fluctuating or falling in the global markets except for

prepared or preserved fish. In Figure 6.5, it shows that the trends in the unit value of almost all the top four exports of Viet Nam are either fluctuating or falling in the global markets except for prepared fish fillets.

Figure 6.1: Trends of unit value of Top 4 global export items of Cambodia

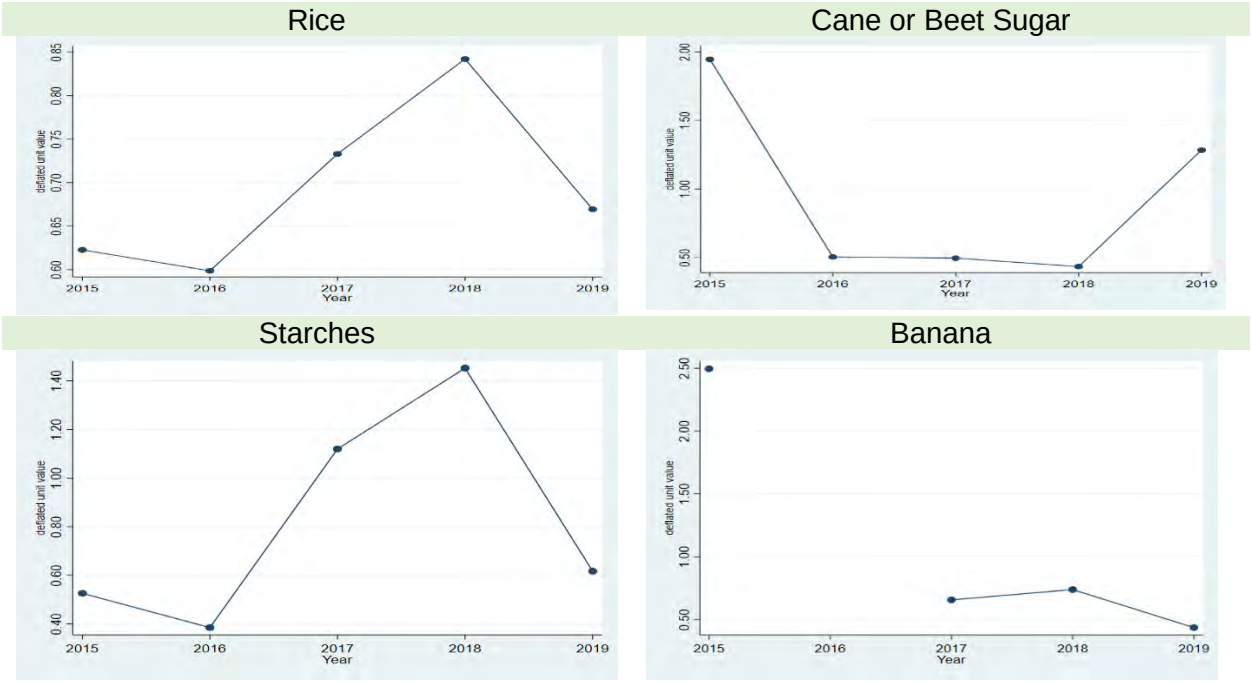


Figure 6.2: Trends of unit value of Top 4 global export items of Laos

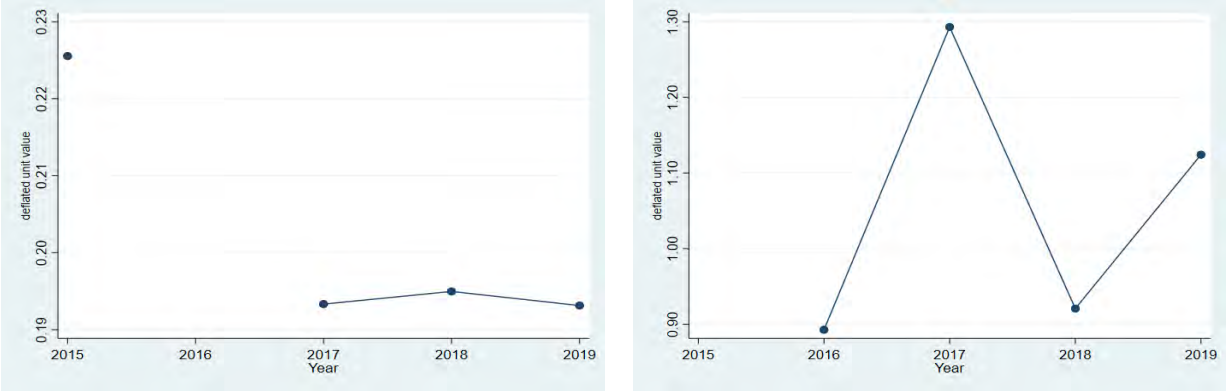


Figure 6.3: Trends of unit value of Top 4 global export items of Myanmar

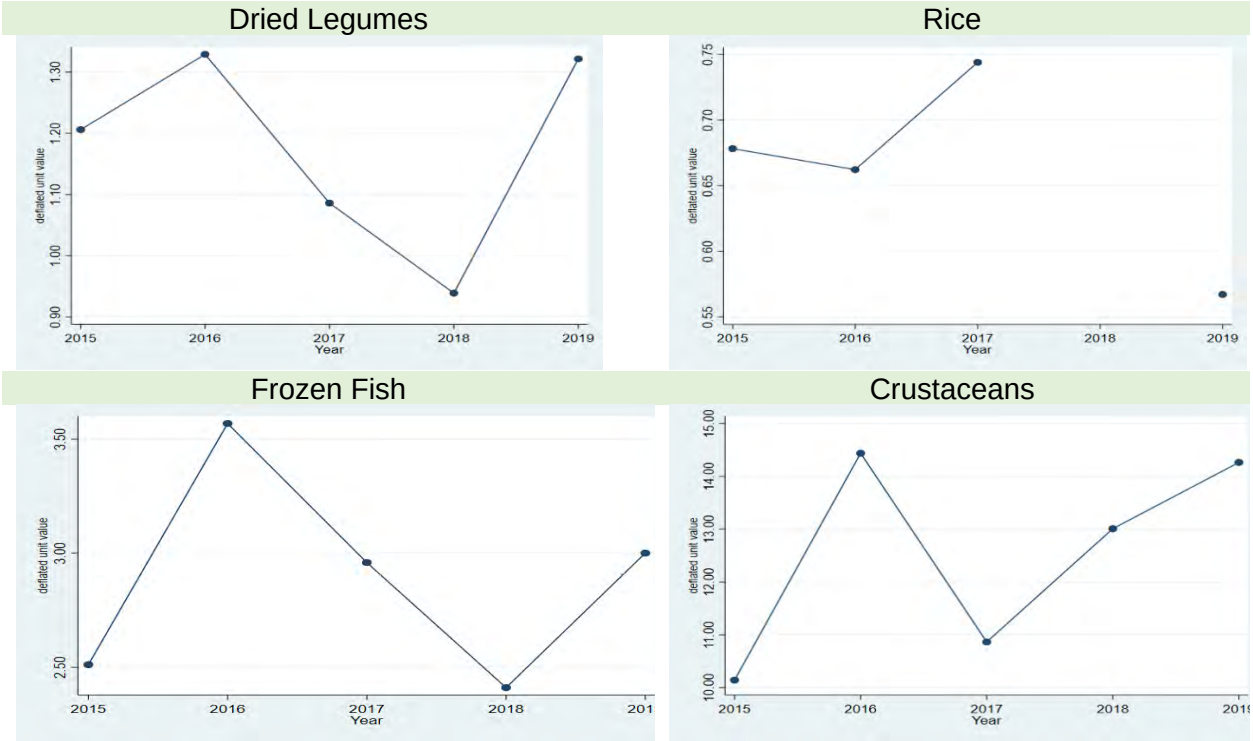
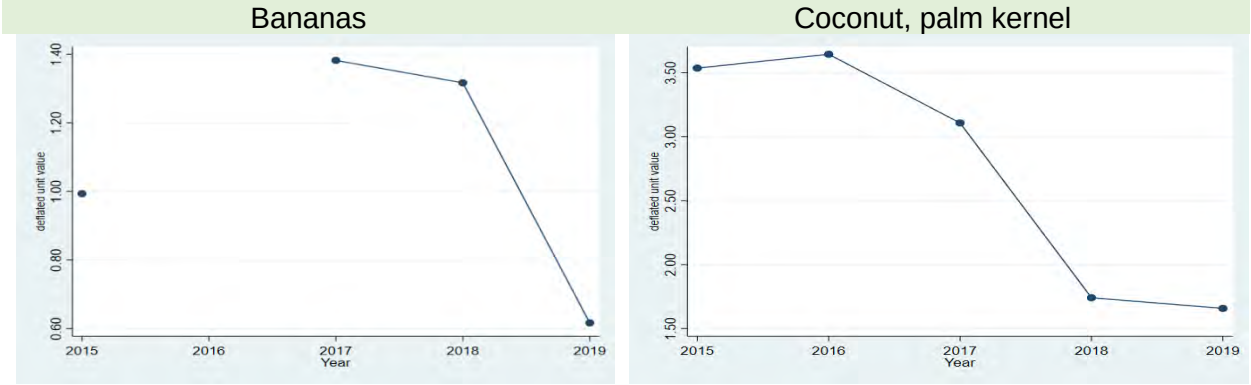


Figure 6.4: Trends of unit value of Top 4 global export items of The Philippines



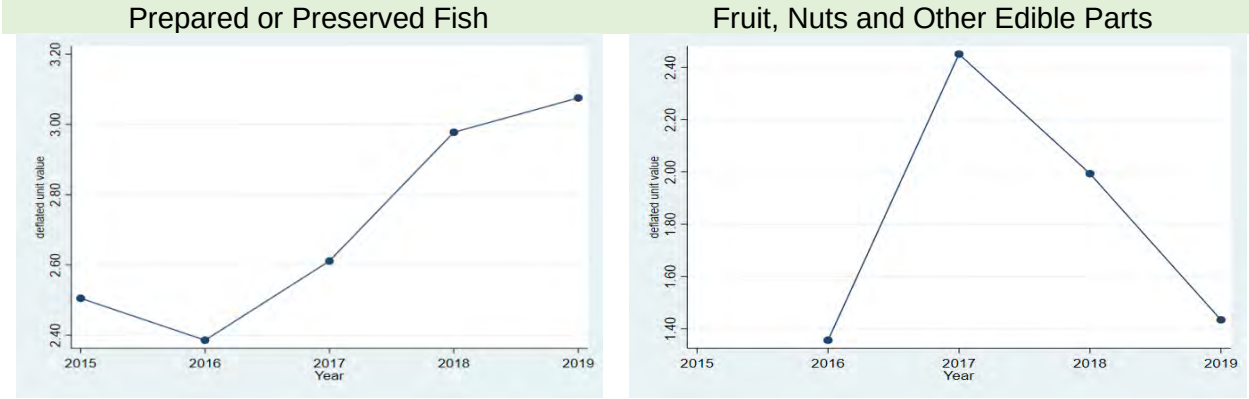
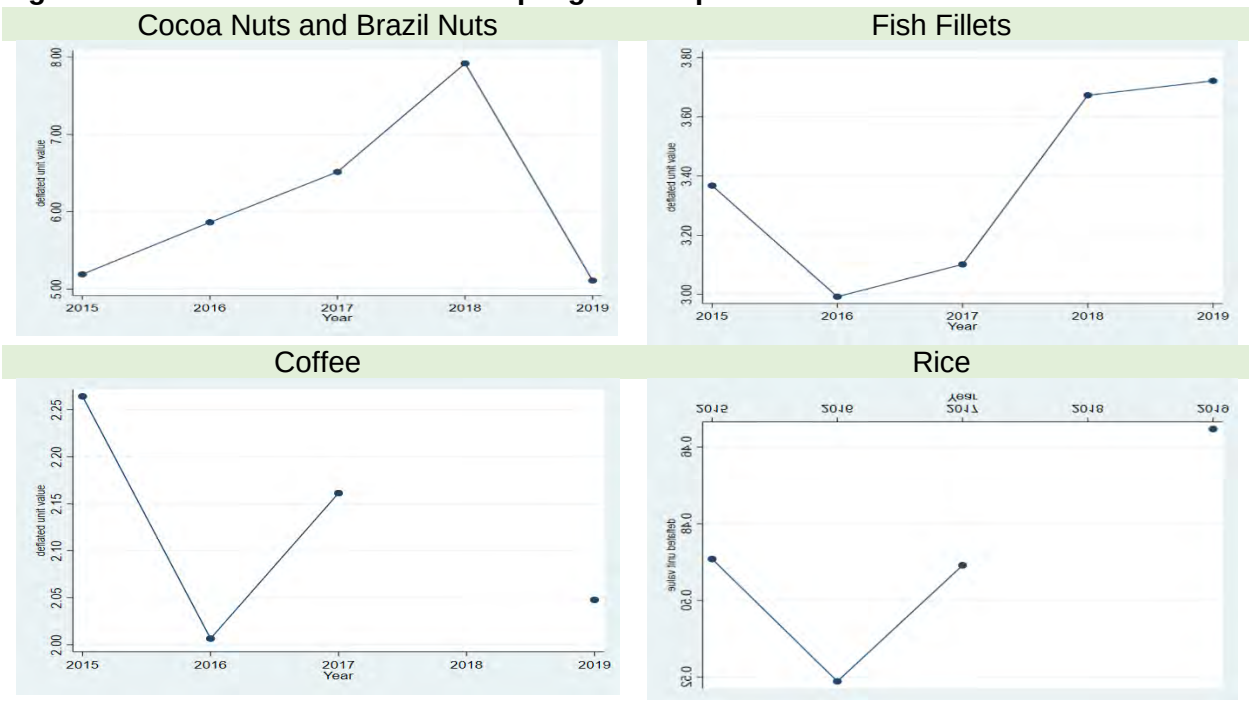


Figure 6.5: Trends of unit value of Top 4 global export items of Viet Nam



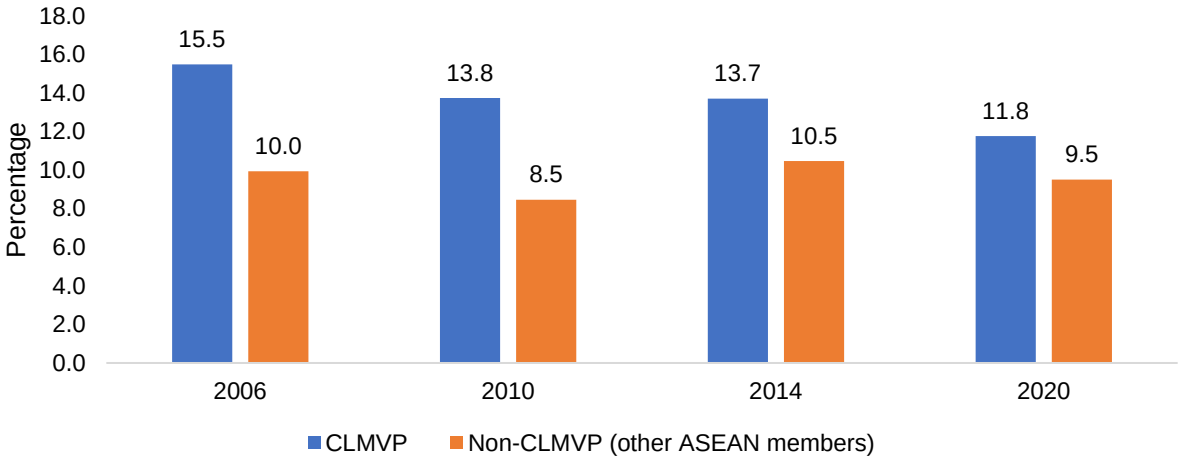
7. Policy Landscape

7.1. Tariff policy

The worldwide average of tariff and non-tariff protection in agriculture is higher than the non-agriculture sector. The simple average tariffs on agri-food imports in CLMVP is 11.8% while it is 9.5% in non-CLMVP among the ASEAN countries with significant dispersion across countries (Figure 7.1). The agriculture sector of all ASEAN countries is relatively less protected except in Viet Nam and Thailand, which applies an average tariff in 2020 of 16.5% and 29.3%, respectively (Figure 7.2 and Figure 7.3). Note that beyond the big palm oil exporters, that is, Indonesia and Malaysia, the most export-oriented agriculture in ASEAN comprise these two countries holding third and second ranks in global rice exports.

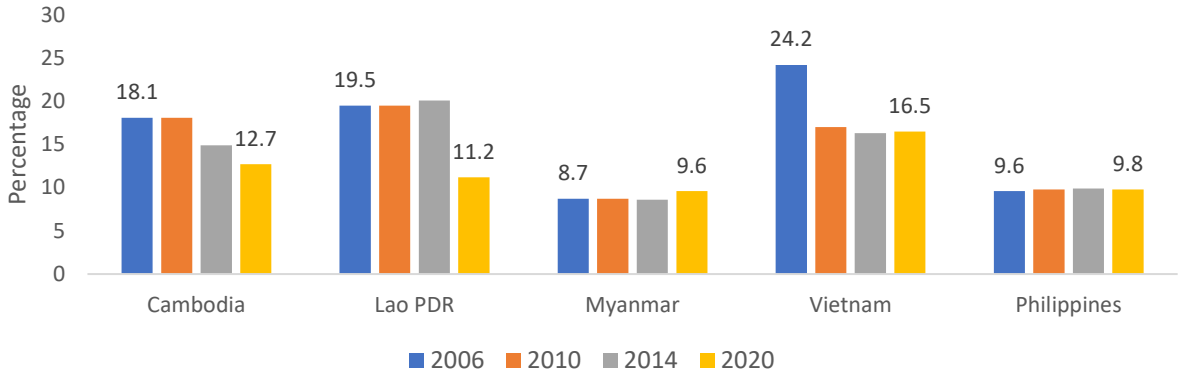
Agricultural tariff protection is expectedly low at 0.1% in Singapore and zero in Brunei Darussalam during the same period. The effective protection to food processing sector in Singapore could be high as it has substantial food manufacturing industry with almost no agriculture. However, the relatively low agricultural import tariffs in Malaysia, The Philippines, and Singapore are offset by high non-tariff measures (NTMs), as estimated by Kee, Nicita, and Olarreaga (2009). The ad valorem equivalent (AVE) of NTMs is estimated at 47.7% in Malaysia, 46.3% in Singapore, and 40.0% in The Philippines (Bouët et al. 2022), while Malaysia imposes average import tariff of 8.7%, Singapore (0.1%), and The Philippines (9.8%). Thailand not only imposes high tariff (29.3%) in agriculture, but also imposes restrictive NTMs and its ad valorem equivalent (AVE) is 39.8% in the agriculture and food sector (Bouët et al. 2022).

Figure 7.1: Simple average MFN applied duty of agricultural goods for CLMVP and Non-CLMVP countries



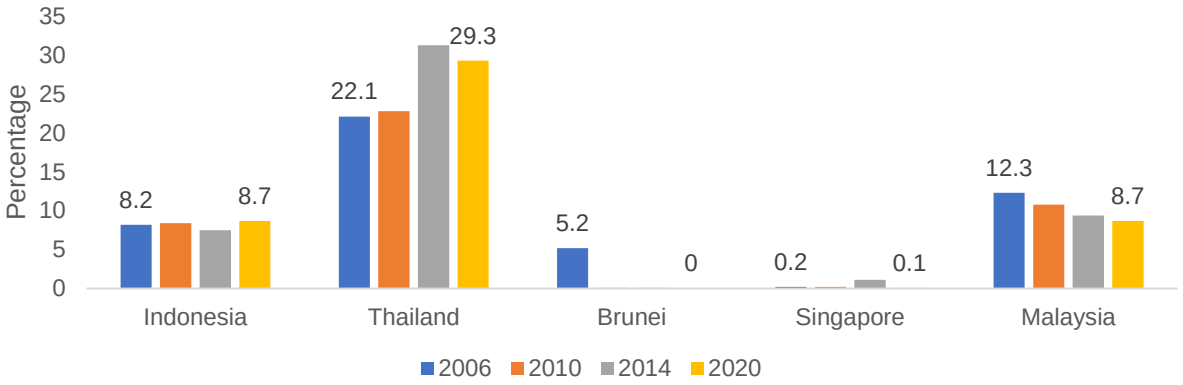
Source: TAO, WTO

Figure 7.2: Simple average MFN applied duty of agricultural goods for CLMVP countries



Source: TAO, WTO

Figure 7.3: Simple average MFN applied duty of agricultural goods of non-CLMVP (other ASEAN members) countries



Source: TAO, WTO

7.2. Non-Tariff policy

NTMs are policy measures, other than customs duties, that have the potential to have an economic impact on international trade in goods by altering traded quantities, prices, or both. NTMs are playing a larger role in international trade because of the reduction of tariffs globally because of successive agreements under the General Agreement on Tariffs and Trade/World Trade Organization (GATT/WTO), and because of rising consumer concerns about food safety and quality and environmental protection. For agriculture, SPS measures and TBT stand out as major obstacles to international trade.

The Uruguay Round Agreements acknowledged that not just tariffs, but also different NTMs, subsidies, and local assistance for agriculture and industrial must be subject to discipline. In practice, the WTO accords permit nations to achieve legitimate objectives using NTMs; however, in the case of technical regulatory measures, they should not be applied in a manner that creates needless trade barriers. In other words, the WTO regulations pertaining to technical NTMs such as TBTs and SPS measures are intended primarily to prohibit "regulatory protectionism" (UNCTAD, 2013).

7.2.1. Technical measures

7.2.1.1. SPS measures

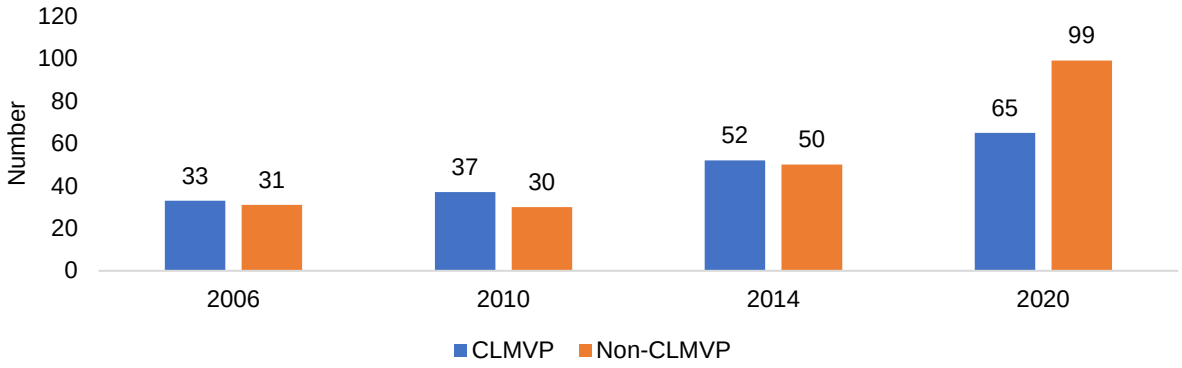
The SPS Agreement became effective on January 1, 1995.[5] Implementation was postponed by two years for developing nations and by five years for the least developed nations. The SPS Agreement has two primary goals. First, it affirms WTO members' sovereign powers to offer the level of health protection they think acceptable. Second, it ensures that NTMs are not exploited to hide international trade limitations. The number of SPS measures adopted by CLMVP countries on agricultural goods has increased from thirty-three in 2006 to sixty-six in 2020, thereby registering a growth of more than hundred percent. While in non-CLMVP (other ASEAN members), the number of SPS measures tripled during the same period (Figure 7.4). However, among the CLMVP countries, The Philippines shares the maximum number of SPS measures implemented on agricultural

[5] For the text of the SPS Agreement, see https://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm.

goods while Cambodia and Lao PDR did not report any SPS measures implemented by them between 2006 to 2020 (Figure 7.5 and Figure 7.6).

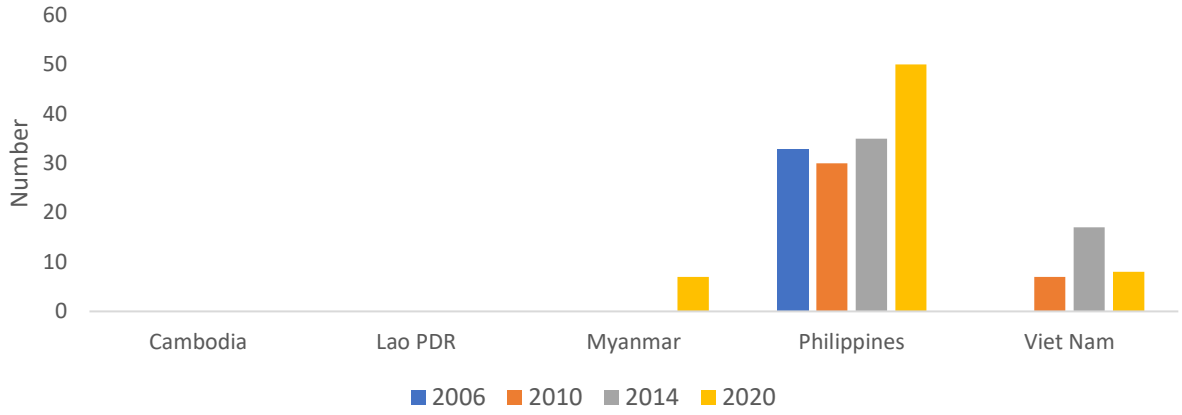
The fundamental purpose of SPS is to preserve the health of human, animal, and plant populations resident in a specific region or country, whereas quotas are intended to represent an impediment to the trade of afflicted items. Clearly, quotas increase import prices and decrease import quantities. Utilizing trade-related policies to protect health may have certain trade implications, although these effects are not always negative (WTO, 2019).

Figure 7.4: Number of SPS measures adopted by ASEAN member on agricultural goods



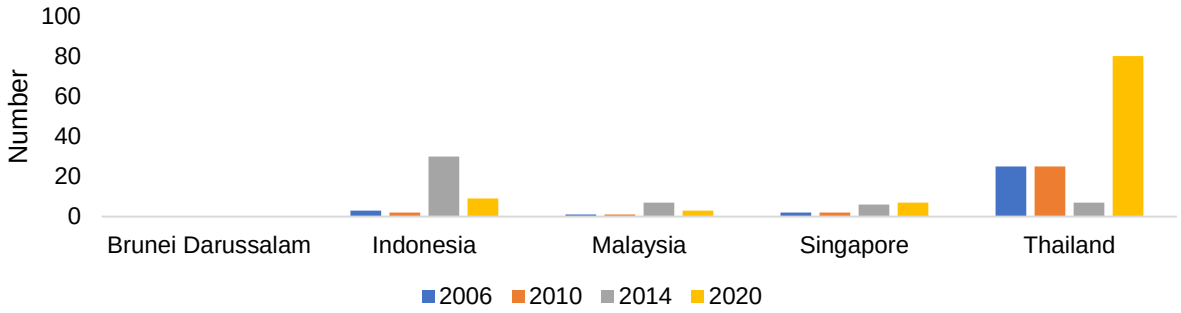
Source: WTO

Figure 7.5: Number of SPS measures adopted by CLMVP countries on agricultural goods



Source: WTO

Figure 7.6: Number of SPS measures adopted by non-CLMVP countries on agricultural goods



Source: WTO

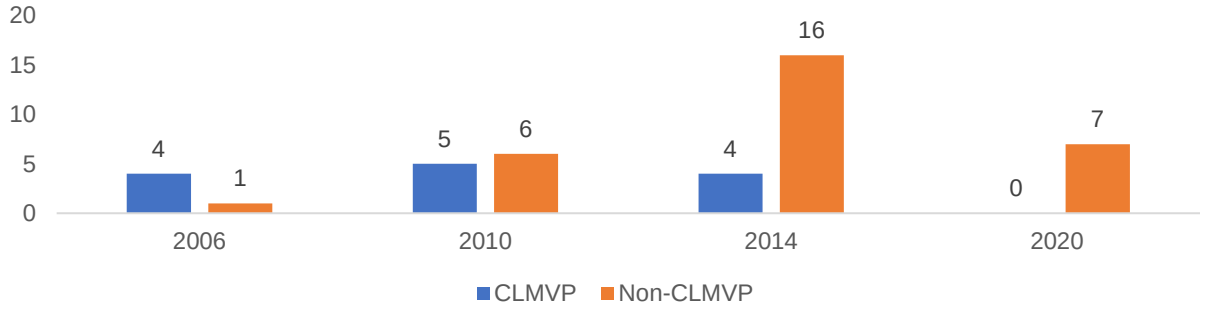
7.2.1.2. TBT measures

The WTO Agreement on the Technical Barriers to Trade Agreement, which entered into force in 1995, is the multilateral successor to the Standards Code, which was signed by 32 GATT contracting states during the 1979 Tokyo Round of Trade Negotiations.[6] The objectives of the TBT Agreement can be summarized as: (1) ensuring that technical regulations, standards, and conformity assessment procedures do not create unnecessary barriers to international trade; and (2) allowing members sufficient regulatory discretion to protect human, animal, and plant life and health, national security, the environment, consumers, and other policy interests.

The TBT Agreement defines technical regulations, standards, and conformity assessment methods. Article 2.4 of the TBT Agreement promotes the application of international standards and encourages mutual acceptance of requirements and conformity assessment procedures among WTO members. The number of TBT measures adopted by CLMVP countries on agricultural goods remained the same during 2006 to 2014 and became zero in 2020. In non-CLMVP states (other ASEAN members), meanwhile, the number of TBT measures increased from one to seven between 2006 to 2020 (Figures 7.7–7.9).

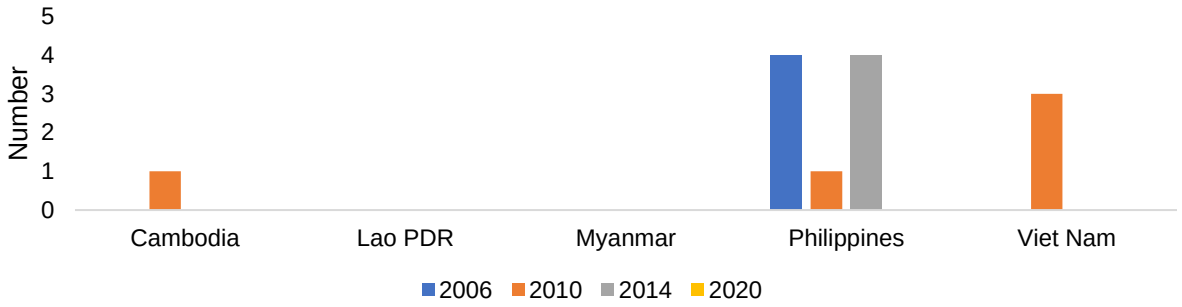
[6] For the text of the TBT Agreement, see https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm.

Figure 7.7: Number of TBT measures adopted by ASEAN countries on agricultural goods



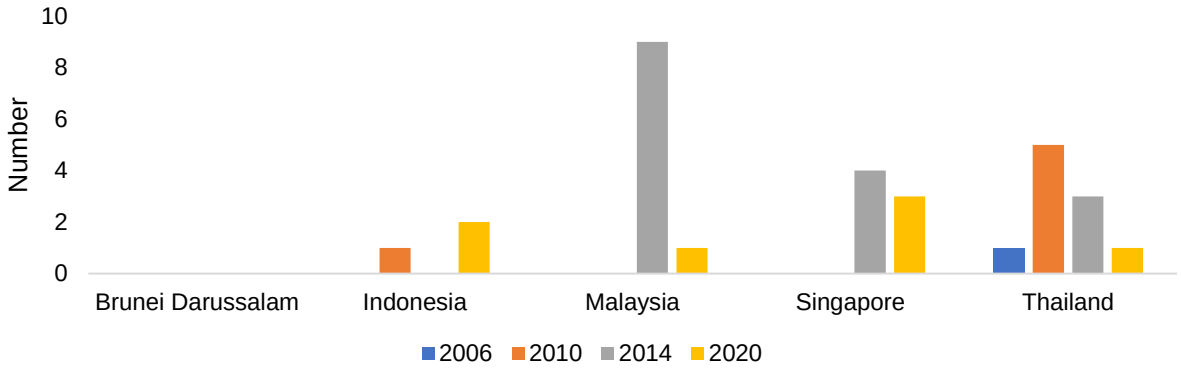
Source: WTO

Figure 7.8: Number of TBT measures adopted by CLMVP countries on agricultural goods



Source: WTO

Figure 7.9: Number of TBT measures adopted by non-CLMVP countries on agricultural goods



Source: WTO

7.2.2. Non-Technical measures

7.2.2.1. Rules of origin

The rules of origin (ROO) are the criteria used to determine a product's nation of origin. Their significance stems from the fact that import charges and restrictions may vary based on the country of origin. ROO is divided into preferential and non-preferential categories, providing distinct functions. In general, non-preferential ROO are used to determine the country of origin in terms of quota allocation and the impact of contingency protection measures. Preferential rules of origin establish which products are eligible for preferential access and are thought essential for enforcing preferential schemes. Preferential ROO is further subdivided into rules on general preferential treatment (under GSP schemes) and those pertaining to regional trade agreements. The preferential rules play a crucial role in the modern trading system and are a fundamental component of all trade agreements. Economically, preferential ROO has a direct impact on international trade because they influence the import tax rate (UNCTAD, 2013).

The rules of origin determine the country of origin of a product. Since the application of a certain customs and tariff policy (that is, relevant tariff rates) is dependent on the origin of products (thereby determining the origin of goods objectively), ROO is required.

If only one country is involved in the creation of a product, determining its country of origin is uncomplicated. For example, juices derived from oranges cultivated only in India. On the other hand, if the production involves more than one country, for example, juices produced from oranges cultivated in Nepal and extracted in India. In such situations, a rule must exist to ascertain the country of origin of the product. The rules of origin also play a role in ensuring that favorable tariff rates are only applied to goods originating in qualifying countries (that is, anti-circumvention).

GATT does not specify rules for determining the place of origin of products traded internationally. Each contractual party was allowed to define its own origin rules and, depending on the aim of the regulation, could even maintain multiple origin rules (WTO).

Viet Nam is the only ASEAN member state which applies both preferential and non-preferential rules of origin for their imports, while other ASEAN members including

Cambodia, Lao PDR, Myanmar, The Philippines, Indonesia, Singapore, Malaysia, Thailand, and Brunei Darussalam apply only preferential rules. However, the origin of goods from Free Trade Agreement (FTA) partner countries is determined by the certificate of origin issued by the exporting country in accordance with the agreed rules of origin in the respective agreements (WTO). Non-preferential rules of origin apply to goods traded between countries not linked by any preferential trade agreement and it does not lead to a reduction in tariffs but is used for several other purposes such as quotas, anti-dumping, and countervailing duties. In addition, it is utilized for trade statistics and labelling (WTO).

7.3. Regional trade agreements

The number of regional trade agreements (RTAs) has increased continuously over time, as has the number of significant multilateral agreements. Non-discrimination among trading partners is one of the WTO's main principles; nevertheless, RTAs, which are reciprocal preferential trade agreements between two or more countries, are one of the derogations and are permitted under the WTO subject to a set of regulations (WTO).

Under the Transparency Mechanism for RTAs, the Committee on Regional Trade Agreements (CRTA) evaluates specific regional agreements. As reiterated by WTO members at the 10th Ministerial Conference in Nairobi in 2015, it is also tasked with holding discussions on the systemic implications of RTAs for the global trading system. The current Chairman of the the CRTA is Ambassador Taeho Lee of the Republic of Korea (WTO).

In 2006, members of the WTO agreed to create a provisional procedure to increase the transparency of RTAs and gain a better understanding of their implications on the multilateral system. Under this procedure, countries notify the WTO of their RTAs, which are then discussed by the broader WTO membership based on a presentation of facts produced by the WTO Secretariat. At the 10th Ministerial Conference held in Nairobi in 2015, WTO members decided to work toward the transformation of the provisional mechanism into a permanent mechanism, notwithstanding questions around notice requirements (WTO).

The international trading system is regulated by an increasing number of free trade agreements. Most of the recent trade agreements address not only goods but also services, and deal with rules beyond reciprocal tariff concessions. In 2017, about 30 per cent of world trade was taking place between countries that had signed free trade agreements (UNCTAD, 2018).

The number of trade agreements of the CLMVP countries, including those under negotiation and concluded, rose by more than 92% in 2022 as compared to 2010, while for the non-CLMVP (other ASEAN members) it rose by more than 65% during the corresponding year (Table 7.1 and 7.2).

Table 7.1: FTA status of ASEAN member states, as of October 2022

Country	Under Negotiation		Concluded		Total
	Proposed	Under Negotiation	Signed	Under Implementation	
Cambodia	6	1	1	9	17
Lao PDR	5	1	0	10	16
Myanmar	5	2	1	8	16
Viet Nam	8	3	0	15	26
The Philippines	14	3	0	10	27
CLMVP Total	**38**	**10**	**2**	**52**	**102**
Brunei Darussalam	8	1	0	11	20
Indonesia	17	6	3	15	41
Malaysia	9	6	2	17	34
Singapore	6	8	1	27	42
Thailand	13	9	1	15	38
Non-CLMVP Total	**53**	**30**	**7**	**85**	**175**

Source: FTA Database for Asia, ADB

Table 7.2: FTA status of ASEAN member states, as of January 2010

Country	Under Negotiation		Concluded		Total
	Proposed	Negotiation Launched	Signed	Under Implementation	
Cambodia	2	1	0	6	9
Lao PDR	2	1	0	8	11
Myanmar	2	2	0	6	10
Viet Nam	2	2	0	7	11
Philippines	4	1	0	7	12
CLMVP Total	**12**	**7**	**0**	**34**	**53**
Brunei Darussalam	4	1	0	8	13
Indonesia	6	2	1	7	16
Malaysia	3	6	2	8	19
Singapore	5	9	2	18	34
Thailand	6	7	0	11	24
Non-CLMVP Total	**24**	**25**	**5**	**52**	**106**

Source: FTA Database for Asia, ADB
Note: 1. Proposed – parties are considering a free trade agreement, establishing joint study groups or joint task force, and conducting feasibility studies to determine the desirability of entering into an FTA. 2. Negotiation Launched – The parties, through relevant ministries, declare the official launch of negotiations or set the date for negotiations, or start the first round of negotiations. 3a. Signed – parties sign the agreement after negotiations have been completed. Some FTAs would require legislative or executive ratification. However, the agreement has yet to be implemented. 3b. Under Implementation – when the provision of an FTA becomes effective, for example, when tariff cuts begin.

7.4. Tariff rate quota

Tariff rate quotas (TRQs) are a combination of tariffs and quotas. Generally, imports entering within the quota share are subject to a lower (or zero) tariff rate. Imports exceeding the quantitative limit of the quota are subject to a much higher tariff. Theoretically, TRQs do not limit the quantities as import quantities are not limited, and imports more than the quota are permitted at a higher tariff. In practice, tariffs beyond the quota are sometimes prohibitive, hence the effect of a TRQ is frequently equivalent to a basic quota. Although the use of TRQs to improve market access is a major component of global agricultural trade talks, there is scant empirical evidence on the effect of TRQ implementation strategies on market access (UNCTAD, 2013).

TRQs permit importation of specific agricultural products at reduced taxes up to a specified quantity, with higher duties imposed on quantities above the limit. The procedure was agreed upon to provide exporters with some access to foreign markets when usual import duties are high. Considering high agricultural tariffs, TRQs remain an important means to access agricultural markets, with 41 WTO members including over 1200 TRQs in their market access pledges (WTO).

Cambodia, Lao PDR, Myanmar, Brunei Darussalam, Indonesia, and Singapore do not apply TRQ on any agricultural products. The other ASEAN members, including Viet Nam, The Philippines, Malaysia, and Thailand, apply tariff rate quota on certain agricultural products (Trade Policy Review, WTO). The country-wise details of TRQ are given in Table 7.3.

Table 7.3: Country-wise Tariff Rate Quota

The Philippines	Products covered by tariff quotas include live swine, goats and poultry and meat thereof, potatoes, coffee, maize, rice, sugar, and coffee. The system for administering tariff quotas remains complex. Products subject to tariff quotas are also subject to import licenses.
Malaysia	The products covered for TRQ include live swine and poultry, poultry and pork meat, liquid milk and cream, and round cabbage. In-quota rates range from zero (round cabbages) to 25% (pork), while out-of-quota rates range from 20% to 90% (round cabbages). Quotas are allocated on a first-come-first-serve basis to importers.
Viet Nam	Viet Nam has tariff quotas for imports of eggs, sugarcane, and tobacco. In-quota volumes are subject to 0% import duty.
Thailand	Tariff quotas are applied to 128 tariff lines, all of which relate to 23 agricultural products such as milk, potatoes, onions, garlic, coconut, coffee, tea, rice, soyabeans, palm oil, sugar, tobacco, and silk. The average out-of-quota rate in 2020 is 94.6%, while the average in-quota rate is 25.8%.

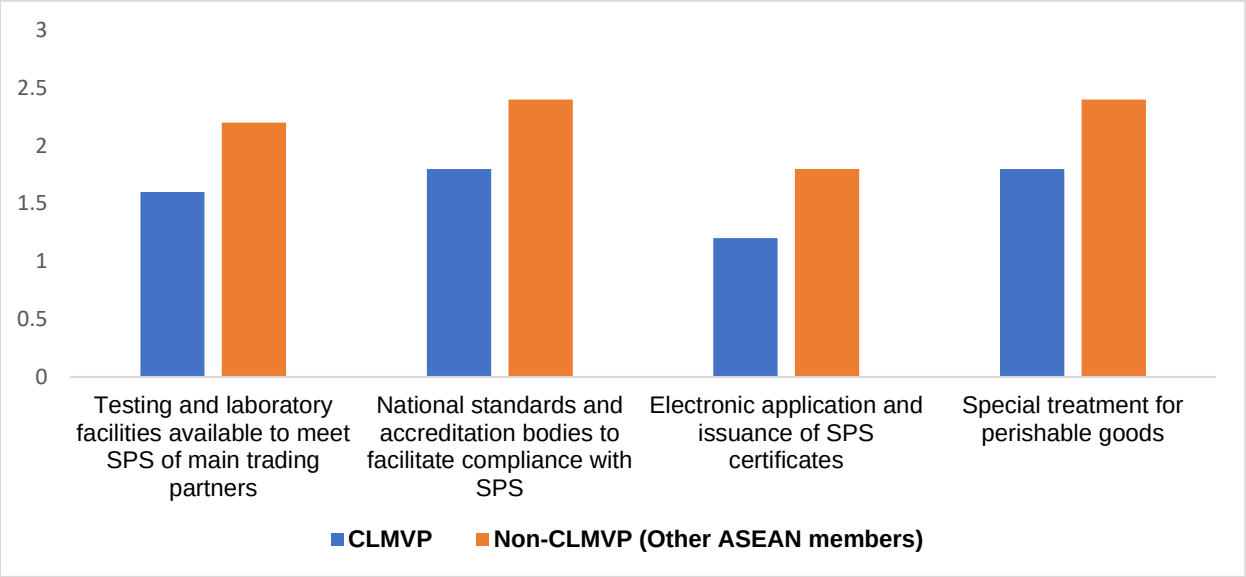
7.5. Agricultural trade facilitation

The trend is generally positive across the world in the implementation of agricultural trade facilitation measures. The conclusion of the UN Global Report on Trade Facilitation 2021 states that decreasing trade costs is critical for enabling economies to effectively participate in regional and global value chains and for them to continue using trade as a key engine of growth and sustainable development. Implementation in agricultural trade facilitation measures still varies greatly around the world, with developed economies achieving the highest level at 64.2%, while the Pacific Islands have the lowest implementation rate at 33.3%. Implementation in South Asia stands at 59.4% while that of Sub-Saharan Africa is at 42.5%.

The ASEAN scores well on all parameters except for electronic application and issuance of SPS certificates, which refers to international trade taking place based on electronic data and documents. The low implementation level, when it comes to the electronic application and issuance of SPS certificates, also echoes findings of several cross-border paperless trade readiness assessment studies that the Customs are much more advanced than other trade-related government agencies in using electronic and automated systems for facilitating trade (UN Global Survey on Digital and Sustainable Trade Facilitation, 2021) (Figure 7.10). According to the UN Economic and Social Commission for Asia and the Pacific (ESCAP), the deployment of paperless trade

measures will lower international trade expenses in the Asia-Pacific area by 25%, saving economies $600 billion yearly.[7]

Figure 7.10: Implementation of agricultural trade facilitation measures in ASEAN, 2021



Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021. Note: Degree of Implementation (0 = not implemented; 3 = fully implemented).

[7] https://www.digitalizetrade.org/

8. Conclusion and Policy Implications

This analysis of CLMVPs market integration within ASEAN and beyond highlights the issue of the limited diversification of CLMVP (except Viet Nam) exports across products and markets. Such limited diversification has a major implication for risk mitigation in international markets. It was observed for the period under review that CLMVP, excluding Viet Nam, exported to new markets and tried to adjust at the extensive margin. However, the countries have been unable to diversify their exports in terms of value. CLMVP faces the challenges related to infrastructure, poor domestic supply, and financial constraints which limit its capacity to move up the value chains (MOALI 2018). Considering these issues, challenges, and our analysis, we propose the following policy recommendations:

1. "Competition Indices" and "Trade Potential" used in the analysis highlight potential products which can be the starting point for CLMVP, excepting Viet Nam, to diversify its exports. These potential products are rice and cane for Cambodia, coffee and manioc for Lao PDR, rice and dried legumes for Myanmar, and bananas and coconut for The Philippines, in which the states' potential for export are high and the intra-ASEAN competition is low. As the AEC is becoming a reality, and with additional tariff reductions under the ASEAN Free Trade Agreement, CLMVPs may explore opportunities to integrate with regional chains of production to reduce its competition and may also take advantage of easier access to larger markets in the region.
2. CLMVP may also learn and adopt policies from the experience of one of its own, Viet Nam. Following the introduction of "Doi Moi" reforms and Integrated Pest Management, Viet Nam witnessed a significant increase in total rice production and yield (JICA 2013). These reforms included the following:
    a. Dismantling the collective system and promoting family farming
    b. Abolishing administered prices
    c. Devaluing the exchange rate and exposing the agriculture sector to international prices

    Recently, along with rice, Viet Nam has become one of the largest exporters of coffee, cashew, and black pepper. In 1990, however, Viet Nam did not produce

either coffee, cashew, or black pepper. Viet Nam increased the production and exports of these commodities by providing subsidies, including value added tax exemptions and marketing related assistance (Arita and Dyck 2014).

3. Market integration is an effective way of linking the smallholders of the aforementioned four countries to ASEAN's agricultural markets. It provides an opportunity to export more of its potential products and realize higher prices from ASEAN markets. Intensifying integration will ease the access to ASEAN markets, which will further facilitate increasing the unit value of exports in some of the ASEAN markets.
4. Myanmar has adopted the Agricultural Development Strategy (2018–2019 to 2022–2023) to overcome the challenges of limited capacity of production, which is a step in the right direction.

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