

PERSPECTIVE

RESEARCHERS AT ISEAS – YUSOF ISHAK INSTITUTE ANALYSE CURRENT EVENTS

Singapore | 18 September 2020

Promoting Regulatory Convergence for Agri-food Trade in ASEAN

*Sithanonxay Suvannaphakdy and Pham Thi Phuong Thao**

EXECUTIVE SUMMARY

- Securing market access for agri-food in ASEAN is still a work in progress. Non-tariff measures (NTMs) that raise costs for producers, importers and exporters are a key obstacle.
- ASEAN member states have increasingly used regulatory instruments such as sanitary and phytosanitary (SPS) measures, which are driven by non-trade policy considerations such as consumer concerns for product quality and safety.
- The proliferation of SPS measures and weak performance of agri-food trade indicate ASEAN's limited progress in eliminating non-tariff barriers that severely reduce agri-food trade.
- Eliminating non-tariff barriers and reducing the diversity of NTMs can promote intra-ASEAN trade in agri-food products by reducing consumer prices in importing member states and reducing export costs in the exporting member states.
- Further NTM reform should focus on harmonization and mutual recognition of NTMs at the regional level through NTM reforms at the national level.

** Sithanonxay Suvannaphakdy is Lead Researcher (Economics) and Pham Thi Phuong Thao is Senior Research Officer at the ASEAN Studies Centre, ISEAS – Yusof Ishak Institute.*

INTRODUCTION

Market access is primarily conceived in terms of the removal of tariff barriers to trade, and in that sense, ASEAN has been remarkably successful in negotiating tariffs downward over the past two decades. However, free flow in agri-food trade in ASEAN has not yet been achieved, with key obstacles being non-tariff measures¹ (NTMs), including regulatory instruments such as sanitary and phytosanitary (SPS) measures as well as import licenses and testing and certification requirements. NTMs affect producers, importers and exporters alike by increasing information, compliance and procedural costs.

ASEAN has been implementing a work programme to reduce the trade-distorting effects of NTMs on agri-food trade for more than a decade. The term “agri-food trade”, used in this article, includes products in the agro-based and fisheries sectors² identified as priority integration sectors under the ASEAN Framework Agreement for the Integration of Priority Sectors³ signed in 2004. Agro-based and fisheries products are defined under the 8-digit ASEAN Harmonized Tariff Nomenclature (AHTN). These AHTN 8-digit codes are aggregated into the 4-digit Harmonized System (HS) to provide consistent time series data on agri-food trade. Details on product classifications into 4-digit HS codes are provided in the following section.

NTM reforms were covered under the ASEAN Framework Agreement for the Integration of Priority Sectors which aimed to establish (1) a database of ASEAN NTMs, by 30 June 2004, (2) the criteria for identifying NTMs that are barriers to trade, by 30 June 2005, and (3) a definitive work programme for the removal of NTMs that are barriers to trade, by 31 December 2005. However, the efficacy and success in eliminating NTMs remain unclear since there is no official record on the number of eliminated non-tariff barriers available to the public.

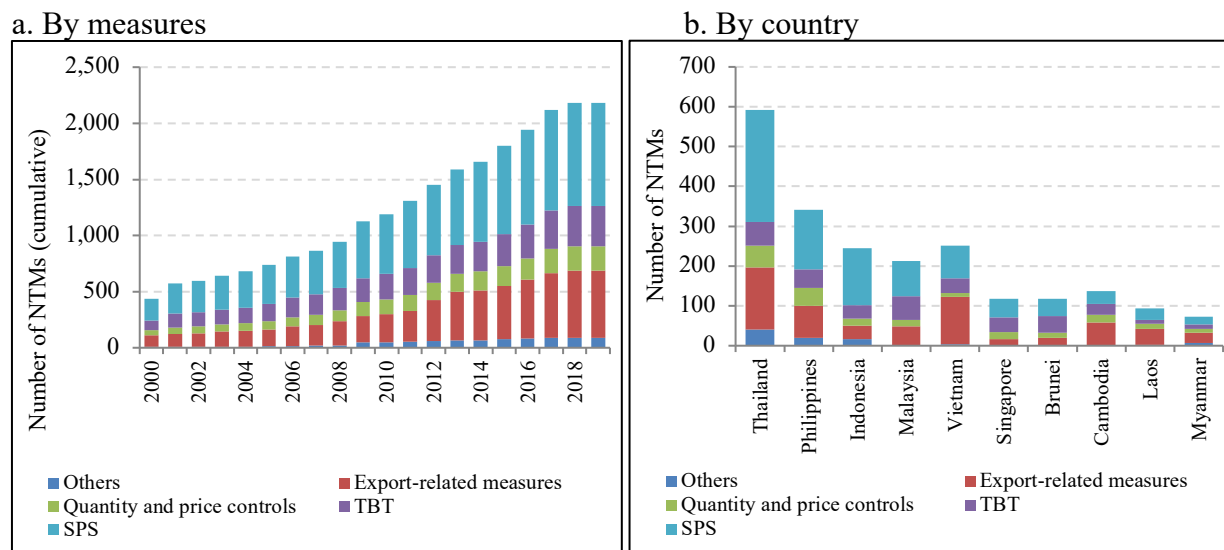
This article assesses the effectiveness of ASEAN’s NTM reforms for agri-food trade, based on two outcome variables, namely the number of NTMs and intra-ASEAN trade in agri-food products. The findings suggest that ASEAN has not made much progress in reducing non-tariff barriers on agri-food products.

THE PROLIFERATION OF NTMs IN AGRIFOOD TRADE

The global NTM database⁴ reveals that NTMs on agri-food trade (both exports and imports) in ASEAN rose from 434 measures in 2000 to 1,192 measures in 2010 and to 2,181 measures in 2019. On the import side, sanitary and phytosanitary (SPS) measures are the largest component, accounting for about half of total NTMs. These measures have largely been driven by non-trade policy considerations such as consumer concern for product quality and safety. The remaining measures include diverse market access conditions such as import licenses, inspection requirements, testing and certification requirements, labelling and packaging requirements (*Figure 1a*).

On the export side, there are 595 measures imposed by governments of the exporting countries. These account for 27% of total NTMs. About two-thirds of export-related measures relate to SPS and technical barriers to trade (TBT) such as certification requirements, product quality or safety requirements and export permit requirements (*Figure 1a*).

Figure 1: The Number of NTMs on Agri-food Trade in ASEAN, as of 2019



Note: Agri-food trade includes agro-based and fisheries products. Agro-based products are defined by HS 4-digit codes: 0702, 0708, 0710, 0713, 0801, 1005, 1102, 1201, 1203, 1204, 1205, 1206, 1207, 1208, 1507, 1511, 1512, 1513, 1515, 2002, 2005, 2008, 2009, 2302, 2303, 2304, 2306. Fisheries are defined by HS 4-digit codes: 0301, 0302, 0303, 0304, 0305, 0306, 0307, 1603, 1604, 1605, 2104.

Source: Authors' calculation using data from UNCTAD's Trade Analysis Information System (TRAINS), accessed August 11, 2020. Available at: <https://trains.unctad.org/>.

The NTMs on agri-food trade are unevenly distributed across member states. Those with a large number of NTMs are Thailand (592), the Philippines (341), Vietnam (252), Indonesia (245), and Malaysia (213) (Figure 1b). SPS measures and export-related measures account for more than half the NTMs in each member state. On the import side, the largest number of SPS measures is found in Thailand (282), followed by the Philippines (150), Indonesia (144), Malaysia (88), and Vietnam (83). Two food import-dependent member states—Singapore and Brunei—have a moderate number of SPS measures. Cambodia, Laos and Myanmar have the lowest number of SPS measures in ASEAN. On the export side, Thailand and Vietnam impose relatively a large number of regulatory measures on their export of agri-food products. The same pattern is also observed in Cambodia and Laos (Figure 1b).

SPS MEASURES AND THE STAGNANT INTRA-ASEAN AGRIFOOD TRADE

The second outcome variable on the effectiveness of NTM reforms is the performance of intra-ASEAN exports in agri-food products, which has been stagnant in the past decade. ASEAN's trade data⁵ reveal that the share of intra-ASEAN exports in ASEAN's total exports for agri-food products dropped from 13 percent in 2010 to 12 percent in 2018. While fisheries' exports rose by 87 percent from US\$1.3 billion in 2010 to US\$2.4 billion in 2018, agro-based exports fell by 6 percent from US\$5.6 billion to US\$5.2 billion in the same period. The difference in trade performance across sectors may reflect the difference in the adaptive capacity of producers and traders to comply with regulatory requirements in ASEAN markets. For instance, the growth of agro-based exports from 2010 to 2018 was positive for Thailand, Vietnam and Cambodia, and negative for Indonesia, Malaysia, Myanmar, The Philippines and Laos.

Following Heal and Palmioli (2015),⁶ we calculate ‘exposure to SPS measures’ to gauge the extent to which ASEAN member states face SPS-related barriers to their agri-food exports to ASEAN markets. The score is calculated by multiplying the share of bilateral exports⁷ in agri-food products with the ad valorem equivalents (AVEs) of SPS measures on imports for such products in the importing countries. The AVE of an SPS measure on agri-food imports is the rate of an ad valorem tariff that would reduce imports of those products by the same amount as the NTM. The estimated AVEs of SPS measures on agri-food products were obtained from Ing and Cadot (2019).⁸ *Table 1* presents AVEs of SPS measures, the share of bilateral exports, and the exposure score for ASEAN member states. It reveals three salient features of agri-food trade in ASEAN.

First, the price-raising effects of SPS measures on agri-food imports – measured by AVEs of SPS measures – vary across member states. The top five member states severely affected by SPS measures are Vietnam (16.6 percent), Myanmar (12.1 percent), Laos (11.9 percent), Thailand (11.7 percent), and Singapore (11.3 percent). For instance, SPS measures pushed prices of imported agri-food products upward by 16.6 percent in Vietnam, 11.9 percent in Laos and 11.3 percent in Singapore. In contrast, the impact of SPS measures on agri-food imports is relatively low in The Philippines (3.7 percent), Indonesia (7.6 percent), Cambodia (7.6 percent), Malaysia (8.8 percent) and Brunei (8.9 percent). Higher prices of imported agri-food products reduce demand for those products exported by other member states.

Second, five member states export at least 20 percent of their total exports in agri-food products within ASEAN. These are Cambodia (71 percent of total exports), Singapore (40.5 percent), Laos (39.8 percent), Brunei (32.3 percent) and Myanmar (26.5 percent). The remaining member states export most of their agri-food products to countries outside the region. Regardless of the intra-ASEAN export share in their total exports, all member states’ agri-food exports are concentrated to a few markets. For instance, 69 percent of Cambodia’s agri-food exports went to Malaysia while Indonesia’s mainly went to Malaysia and Vietnam. The concentration of agri-food exports to markets with high AVEs of SPS measures can substantially reduce agri-food trade in the region.

Third, agri-food exports from five member states have very high potential exposures to SPS measures imposed on imported agri-food products by other member state governments. These are Brunei, Cambodia, Laos, Myanmar and Singapore, all of which have an exposure score greater than 50. This is the consequence of the high export concentration or high AVEs of SPS measures in the intra-ASEAN market, or both. For instance, Cambodia exported about 69 percent of its total agri-food exports to Malaysia, which has SPS measures of 8.8 percent. This results in an exposure score of 509.5 (69 x 8.8), meaning that Cambodia suffers very high exposure to SPS measures imposed by Malaysia. At the same time, Cambodian agri-food exports to other markets with higher AVE of SPS measures such as Thailand or Vietnam, suffer an even higher exposure score for Cambodia resulting in reduced exports on its part.

The exposure scores in this study remain crude, and more detailed analysis at the product level is needed to capture the extent to which individual products within member states are impacted. Nevertheless, the results suggest that reducing the diversity of NTMs across member states will promote intra-ASEAN trade in agro-based products.

Table 1: Agri-food Export Share (2018) and Potential Exposure to SPS Measures in ASEAN Member States

Importer	AVE (%)	Exporter																			
		Brunei		Cambodia		Indonesia		Laos		Malaysia		Myanmar		Philippines		Singapore		Thailand		Vietnam	
		Share	Score	Share	Score	Share	Score	Share	Score	Share	Score	Share	Score	Share	Score	Share	Score	Share	Score	Share	Score
Brunei	8.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	1.7	0.0	0.1	0.0	0.2	1.4	12.6	0.0	0.3	0.0	0.1
Cambodia	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5	3.8	1.5	11.4	0.9	6.6
Indonesia	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.5	1.5	11.6	0.4	3.0	5.4	40.7	0.3	2.5	0.1	0.7
Laos	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	9.3	0.0	0.5
Malaysia	8.8	30.8	270.7	69.3	609.5	4.3	37.9	1.2	10.4	0.0	0.0	1.9	16.7	1.6	13.8	16.0	140.6	3.0	26.0	1.1	9.5
Myanmar	12.1	0.0	0.0	0.0	0.0	1.9	23.2	0.0	0.0	0.7	8.4	0.0	0.0	0.0	0.0	0.6	6.8	1.3	15.5	0.0	0.0
Philippines	3.7	0.0	0.0	0.0	0.0	1.8	6.7	0.0	0.0	4.6	17.0	0.6	2.1	0.0	0.0	3.1	11.6	1.6	5.9	1.3	4.8
Singapore	11.3	0.6	7.2	0.1	0.9	1.6	18.4	0.0	0.2	4.4	49.2	6.3	71.1	0.3	3.3	0.0	0.0	1.0	11.5	1.0	10.9
Thailand	11.7	0.0	0.0	1.4	16.2	0.9	10.5	24.5	286.2	0.6	7.0	15.2	177.9	0.3	3.8	2.6	30.8	0.0	0.0	3.0	35.2
Vietnam	16.6	0.9	15.8	0.3	5.1	2.2	36.3	14.2	235.2	2.8	46.8	1.0	16.3	1.1	17.8	10.9	180.8	2.5	41.3	0.0	0.0
Average Score			29.4		63.2		13.3		53.2		13.5		29.6		4.2		42.8		12.4		6.8
Share of Total Exports (%)		32.3		71.0		12.8		39.8		13.9		26.5		3.7		40.5		12.0		7.4	

Note: Red indicates a high potential to exposure to SPS measures, which is calculated by multiplying the share of bilateral exports in agri-food products with the ad-valorem equivalent (AVE) of SPS measures on imports of such products in the importing countries.

Source: Authors' calculation using AVE estimates from Ing and Cadot (2019).

Legend:

Degree of exposure	Colour	Score
Very high	Red	Red ≥ 50
High	Orange	20 < Orange < 50
Moderate	Yellow	10 < Yellow < 20
Limited	Light green	5 < Light green < 10
None	Green	0 < Green < 5

IMPLICATIONS FOR NTM REFORMS IN AGRI-FOOD SECTOR

The combination of proliferation of NTMs and weak agri-food trade performance in ASEAN implies that regional efforts alone are unlikely to be a sufficient instrument in eliminating economically inefficient, unclear, and redundant regulations obstructing agri-food trade in ASEAN. There are three possible explanations for the limited impact of ASEAN's NTM reforms on agri-food trade. First, national governments do not have sufficient information about the NTMs in force in other member states, and sometimes, even in their own country. Second, identifying and eliminating non-tariff barriers from the list of thousands of NTMs require substantial use of time, financial resources and technical capacity, and strong political support at both the national and the regional level. These factors are still in deficient supply in ASEAN. Third, the proliferation of NTMs, especially SPS measures, has added to the complexity of the cost-benefit analysis used to justify the elimination of non-tariff barriers, which involves assessments of costs, benefits, and risks on human, animal and plant's health, from experts in sectors such as economics, agriculture and healthcare/food safety.

Our results suggest a need to accelerate NTM reforms at the regional and domestic levels. First, trade costs tend to increase with the proliferation of NTMs. The rise of SPS measures and other market access conditions reflect differences in development, diverse procedural traditions in issuing and enacting regulations, and dissimilar protection levels. The regulatory diversity in ASEAN may also entail significant costs hindering agri-food trade. The maintenance of unnecessary burdensome NTMs can result in additional negative policy impacts such as higher transaction costs stemming from information asymmetries across member states. Divergent regulatory requirements can also lead to costly duplication in product development, manufacturing, and testing – obstacles that affect small and medium-sized enterprises (SMEs) most. Such fixed costs can be a key determinant in their decision to export or invest. Lack of transparency or clarity of regulations, as well as excessive, inefficient or ineffective regulations, creates unnecessary delays and costs.

Second, SPS measures play a critical role in determining access to the markets of other member states. The cost of compliance can be higher for exporters in less developed member states such as Cambodia, Laos and Myanmar (CLM). This is for two reasons. First, the capability of CLM's producers to meet requirements is more limited. Second, these players are supported by weaker export services and less advanced production and testing facilities. Exporters are often required to outsource services like laboratory testing and certification of food products, and these can be expensive. The higher costs thus incurred can erode the advantages that CLM's producers have from lower labour costs.

The key recommendation to emerge from our study is that NTM reforms aimed at promoting agri-food trade in ASEAN should be based on a two-pronged approach of regulatory convergence. By regulatory convergence, we mean that member states' SPS measures become more similar to each other without necessarily becoming identical. Increasingly similar NTMs can reduce their price-raising effect and reduce consumer prices in the importing member states, while reducing export prices in the exporting member states. An economic assessment of regulatory convergence for intra-ASEAN trade by Knebel and Peters (2019)⁹ indicates that the application of SPS and TBT measures raises the unit price of imported agricultural products by at least 17 percent, while bilateral trade between member states having similar NTMs reduces the unit price of those products by about 3 percent. So the net effect of SPS and TBT measures on the unit price is 14 percent.

It would appear therefore that regulatory convergence can reduce agri-food import prices. The proposed two-pronged approach of regulatory convergence includes a regional NTM reform that promotes harmonization or mutual recognition of SPS measures, or a combination of the two at the regional level; as well as a national NTM reform that strengthens the capacity of member states in the design of NTMs and in the integration of NTM reforms into their national regulatory reforms.

Better design of NTMs at the national level should help ASEAN member states maximize the effectiveness of NTMs in responding to consumer concerns while minimizing the induced economic inefficiency and the interference from self-interested lobbies. Incorporating NTMs into the national regulatory reforms should strengthen political commitment and provide a monitoring and evaluation framework for the review, economic impact assessment, and justification of existing and newly proposed NTMs. National NTM reforms can be aligned with regional NTM reforms, and be complemented with capacity building for SMEs to comply with regulatory requirements in ASEAN's markets.

CONCLUSION

NTMs have negatively affected market access for agri-food trade in ASEAN by increasing information, compliance and procedural costs on all sides. ASEAN has seen an increasing use of regulatory instruments such as SPS measures and many other market access conditions such as import licenses, inspection requirements, testing and certification requirements, labelling and packaging requirements.

Given that NTMs are deeply rooted in the legal systems of ASEAN member states, regional efforts alone are unlikely to be a sufficient instrument in eliminating inefficient, unclear, and redundant regulations obstructing agri-food trade in the region. Effective implementation of the regional and national NTM reforms should reduce the trade-distorting effects of NTMs for agri-food trade, and contribute to regulatory convergence in the region.

¹ UNCTAD. *Non-Tariff Measures*. Available at <https://unctad.org/en/Pages/DITC/Trade-Analysis/Non-Tariff-Measures.aspx>

² ASEAN. *ASEAN Framework Agreement for the Integration of Priority Sectors*, Annex XII, 29 April 2014. Available at <https://www.asean.org/wp-content/uploads/images/archive/12%20Product%20Universe.pdf>

³ ASEAN. *ASEAN Framework Agreement for the Integration of Priority Sectors*, 29 April 2014. Available at https://asean.org/?static_post=asean-framework-agreement-for-the-integration-of-priority-sectors-vientiane-29th-november-2004

⁴ UNCTAD. *TRAINS, The Global Database on Non-Tariff Measures*. Available at <https://trains.unctad.org/>

⁵ ASEAN Secretariat. *ASEAN Stats Data Portal*. Available at <https://data.aseanstats.org/trade-annually> (accessed on 11 August 2020).

⁶ Heal, Adam and Palmioli, Giovanni. *Trade and Non-tariff Measures: Impacts in the Asia-Pacific Region*. United Nations Economic and Social Commission for Asia and the Pacific, 2015.

⁷ The share of bilateral exports from country i to country j for agri-food products is calculated by dividing export values from i to j by the total export values of country i for those products. For example, Indonesia's total exports in agri-food products recorded at US\$25 billion in 2018, US\$1.1

billion of which was exported to Malaysia. In this case, the share of bilateral exports was 4.3 percent ((1.1/25) x 100).

⁸ Ing, Lili Yan and Cardot, Olivier. “Ad Valorem Equivalents of Non-Tariff Measures in ASEAN”. In *Regional Integration and Non-Tariff Measures in ASEAN*, edited by Lili Yan Ing, Ralf Perters and Olivier Cadot. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA), 2019, p. 52.

⁹ Knebel, Kristian and Peters, Ralf. “Non-Tariff Measures and the Impact of Regulatory Convergence in ASEAN”. In *Regional Integration and Non-Tariff Measures in ASEAN*, edited by Lili Yan Ing, Ralf Perters and Olivier Cadot. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA), 2019, pp. 80-81.

To read earlier issues of ISEAS Perspective please click here:
<https://www.iseas.edu.sg/articles-commentaries/iseas-perspective>

Preceding three issues of ISEAS Perspective:

2020/104 “Rising Influence of Ethnic Music in Indonesia: A Closer Look at Javanese Campursari” by Made Supriatma

https://www.iseas.edu.sg/wp-content/uploads/2020/09/ISEAS_Perspective_2020_104.pdf

2020/103 “The Rise and Fall of State Governments in Malaysia: Institutions, Constitutions and Political Alignment” by Tricia Yeoh

https://www.iseas.edu.sg/wp-content/uploads/2020/09/ISEAS_Perspective_2020_103.pdf

2020/102 “Vietnam Edging Towards America” by Huynh Tam Sang

https://www.iseas.edu.sg/wp-content/uploads/2020/09/ISEAS_Perspective_2020_102.pdf

<p>ISEAS Perspective is published electronically by: ISEAS - Yusof Ishak Institute</p> <p>30 Heng Mui Keng Terrace Singapore 119614 Main Tel: (65) 6778 0955 Main Fax: (65) 6778 1735</p> <p>Get Involved with ISEAS. Please click here: https://www.iseas.edu.sg/support</p>	<p>ISEAS - Yusof Ishak Institute accepts no responsibility for facts presented and views expressed.</p> <p>Responsibility rests exclusively with the individual author or authors. No part of this publication may be reproduced in any form without permission.</p> <p>© Copyright is held by the author or authors of each article.</p>	<p>Editorial Chairman: Choi Shing Kwok</p> <p>Editorial Advisor: Tan Chin Tiong</p> <p>Managing Editor: Ooi Kee Beng</p> <p>Editors: Malcolm Cook, Lee Poh Onn, Benjamin Loh and Ng Kah Meng</p> <p>Comments are welcome and may be sent to the author(s).</p>
--	---	--