Non-Tariff Measures in ASEAN

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Foreword [ERIA]

Over the years, multilateral trade negotiations have helped to substantially reduce tariff rates. While tariffs have been reduced, the number of non-tariff measures (NTMs) is increasing and is often blamed to be a source of the lack of integration in ASEAN. Yet, in spite of their growing number, we generally have little understanding and information, and thus there is an urgent need to develop a better understanding and transparency of existing NTMs.

The Economic Research Institute for ASEAN and East Asia (ERIA), in collaboration with the United Nations Conference for Trade and Development (UNCTAD), and ASEAN national teams consisting of economists and government officials of ASEAN countries collected and classified NTMs in the 10 ASEAN countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam) based on the latest Multi Agency Support Team February 2012 classification. They worked on all regulations and official documents, including international conventions adopted by countries which had been in effect by January 2015.

The project is led by Lili Yan Ing (ERIA) and Santiago Fernandez de Cordoba (UNCTAD). The report editing team consists of Rizqy Anandhika and Ruth Elisabeth. The core team consists of Michelle Ayu Chinta Kristy, Chi Le Ngo, Maxim Gubarev, Fabien Dumesnil, and Denise Penello-Rial. The project is advanced through the supervision and comments from Shujiro Urata (ERIA), Olivier Cadot (Lausanne University), Ralf Peters (UNCTAD), Ponciano Intal, Jr. (ERIA), and Guillermo Valles Galmes (UNCTAD). The successful work would not have been possible without the invaluable work of national teams composed of the economists and government officials of ASEAN countries.

The project consists of two phases: NTM data collection (the data were released in January 2016) and country report (April 2016) and data analyses on how NTMs will affect trade in the region (January 2017). The project aims to (i) collect, validate, and store NTM data from official sources; (ii) improve the general understanding of these measures and their impact on world trade; and (iii) provide insights on NTMs in ASEAN countries.

The project also significantly benefited from the supervision and support of ASEAN government officials, particularly Sta. Rebecca Fatimah (MITI Malaysia), Sulaimah Mahmood (MTI Singapore), Donna Gultom (MOT Indonesia), Phuong Van Hoang (MIT

Vietnam), and Mark Ng (MTI Singapore). Along the way of conducting the project, the initial work and preliminary findings were well endorsed and accepted at the ASEAN's Senior Economic Officials Meeting in August 2015 in Kuala Lumpur, at the ASEAN's High Level Task Force in January 2016 in Vientiane and East Asian Senior Economic Officials Meeting in April 2016 in Kuala Lumpur.

This initiative is only the beginning of the journey of ASEAN to improve the transparency of NTMs. ERIA and UNCTAD will work hand in hand with ASEAN member states in improving NTM transparency and overall trade environment.

Professor Hidetoshi Nishimura

President of ERIA

Jakarta, April 2016

Foreword [UNCTAD]

The ability to gain market access opportunities and to benefit from them, increasingly depends on compliance with non-tariff measures (NTMs), such as sanitary and phytosanitary measures and technical regulations. Although many NTMs have primarily non-trade objectives, such as the protection of public health or the environment, they may affect trade and represent a major challenge for exporters, importers and policymakers. It is therefore important to understand the use of NTMs and their implications for the formulation and implementation of effective development strategies.

Comprehensive, systematic and reliable information about NTMs is unfortunately scarce to obtain. The collection of NTM data is a highly resource-intensive task and requires specific, technical knowledge. In this context, the International Classification of NTMs was developed by several international organizations, the Multi-Agency Support Team1, in 2006. The collection, classification and analysis of NTMs as well as the coordination of the global effort to enhance the transparency of NTMs have been a regular activity of UNCTAD. We are aiming to collect data on NTMs covering at least 90 per cent of world trade by the end of 2016.

ASEAN member countries have resolved to work on the elimination of non-tariff barriers. The need to create a standardized, high quality, and comprehensive NTMs dataset of the region called for close cooperation between the Economic Research Institute for ASEAN and East Asia (ERIA) and UNCTAD.

Since December 2014, ERIA and UNCTAD have collaborated to create a comprehensive NTMs database of all ASEAN countries. The database presents official regulations that are currently imposed affecting imported and exported products. Regulations are classified according to types of measures, affected products at the tariff line level and partner countries. This enables easy and well-structured access to the information. It also allows for case-specific and more systemized analysis and research as well as effective support to policymakers for their efforts in regional and global economic integration.

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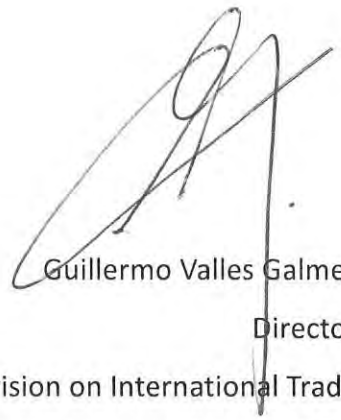
[1] MAST Group is composed of: Food and Agriculture Organization of the United Nations, International Monetary Fund, International Trade Centre, Organization for Economic Cooperation and Development, United Nations Conference on Trade and Development, United Nations Industrial Development Organization, World Bank and World Trade Organization.

I am delighted to welcome the publication of this book, which highlights the accomplishments of this cooperation. It will be an asset for government officials, researchers and representatives of the private sector aiming to strengthen their understanding of NTMs, and policy makers involved in the design or negotiation of policies related to NTMs, even beyond the ASEAN region.



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Acknowledgements

While tariffs have been reduced, the number of non-tariff measures (NTMs) is increasing and is often blamed to be a source of the lack of integration in ASEAN. For NTMs, disciplines on transparency are the key, and regional and multilateral NTM mutual recognition and harmonisation are the answers. Turning back to 2013, when we started the project to develop an NTM database for all 10 ASEAN countries within one year was a kind of 'mission impossible'. With dedication of national teams and government officials, we have successfully developed the NTM database; above all, we have likewise developed NTM expertise in this region.

The project is led by Lili Yan Ing (ERIA) and Santiago Fernandez de Cordoba (UNCTAD).The Report editing team consist of Rizqy Anandika and Ruth Elisabeth. The core team consists of Michelle Ayu Chinta Kristy, Rizqy Anandhika, Chi Le Ngo, Maxim Gubarev, Fabien Dumesnil, and Denise Penello-Rial. The project is advanced by supervision and comments from Shujiro Urata (ERIA), Olivier Cadot (Lausanne University), Ponciano Intal, Jr. (ERIA), and Ralf Peters (UNCTAD), Guillermo Valles Galmes (UNCTAD).

This mission would have definitely been impossible without hard work and dedication of ASEAN national teams and collaboration of government officials: Brunei Darussalam (Christina Ruth Elisabeth, Mohammad Yusri Yahya, Noramali dato Jumat); Cambodia (Chap Sotarith, Christina Ruth Elisabeth, Anika Widiana, Neth Nero, Uy Rthiymony); Indonesia (Ernawati Munadi, Indah Rahayu, Samroni Salim, Titis Kusuma Lestari, Ayu Shinta Saputri); Lao PDR (Ampahphone Sayasenh, Saygnasak Sengaloun, Phonesavanth Sittideth, Sonemala Naouanthasing, Vangchai Vang); Malaysia (Evelyn Shymala Devadason, VGR Chandran, Tang Tuck Cheong, Ezral Uzaimi); Myanmar (Zin Naing, Cho Thein, Win Min Phyoe); Philippines (Loreli C. de Dios, Paul Feliciano); Singapore (Hank Lim, Anika Widiana, Bernard Aw, and government officials); Thailand (Chedtha Intaravitak, Nuttawut Lasanapanyakul, Urairat Jantaraisiri, Maichanok Krapookthong, Wittawat Prayookwong, Challee Khanksiri); and Viet Nam (Vo Tri Thanh, Anh Doung Nguyen, Than Binh Minh, Phuong Van Hoang).

The project also significantly benefited from the supervision and support of ASEAN government officials, particularly Sta. Rebecca Fatimah (MITI Malaysia), Sulaimah

Mahmood (MTI Singapore), Donna Gultom (MOT Indonesia), Phuong Van Hoang (MIT Vietnam), and Mark Ng (MTI Singapore). Along the way of conducting the project, Regional Leaders well endorsed and accepted the initial work and preliminary findings at the ASEAN's Senior Economic Officials Meeting (SEOM) in August 2015 in Kuala Lumpur, ASEAN's High Level Task Force in January 2016 in Vientianne, and lately at the East Asian SEOM in KL in April 2016.

We would also like to thank the editorial team—Maria Priscila del Rosario, Ainslie Smith, Fadriani Trianingsih, and Chrestella Budyanto—for putting these country reports nicely, and our angel, Elisa Ayu, who provided valuable administration support for this project.

We would also like to extend our gratitude to all ASEAN Member States and government officials who significantly contributed to the success of this project and worked together with us to support governments and the business community to have more transparent NTMs, to have a better understanding of NTMs, to design better NTMs, to implement NTMs better, and to move forward for better trade and investment policy and regulations.

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Contents

Executive Summary

Tariffs on regional trade are generally low as they have been progressively liberalised first under the auspices of the General Agreement on Tariffs and Trade/World Trade Organization (GATT/WTO) and, subsequently, in the context of regional and bilateral preferential trade agreements. ASEAN member countries have made significant progress in the lowering of intra-regional tariffs. The fact that tariff liberalisation alone has generally been proven insufficient in providing genuine regional economic integration for many developing countries has drawn further attention to non-tariff measures (NTMs), of which the WTO disciplines are comparatively weak. The use of NTMs, especially complex technical, sanitary and phytosanitary measures, has increased significantly.

As the average tariff rates of ASEAN countries decreased from 8.9 percent in 2000 to 4.5 percent in 2015, the number of NTMs had increased from 1,634 measures to 5,975 measures over the same period. The increase of NTMs was notable not only in ASEAN but also around the world, particularly, between 2008 and 2011. The total number of NTMs in the 10 ASEAN countries was 5,975 measures in 2015 of which 33.2 percent of total measures were in the form of SPS, 43.1 percent were TBT, 12.8 percent were export measures, and the rest of 10.9 percent were in the form of various measures.

A country with a relatively higher number of measures does not mean it is relatively more protectionist than others. Even if a country has a relatively higher number of percentage of affected products to total products, it does not necessarily mean it will have relatively lower trade than the others.

Does this mean that all NTMs are benign? Not really. Many regulations are poorly designed, failing to protect the public while unnecessarily complicating business. For instance, many countries have complicated rules for pharmaceutical imports that nevertheless fail to prevent widespread traffic of counterfeits. There are several reasons for this. First, the governments know little about incentives and even less about how to design market-based regulations, confusing effective with cumbersome.

Second, regulations are often enforced in punitive ways, reflecting the anti-business culture of many administrations. Third, NTMs typically span the competencies of several ministries, with no coordination mechanisms to make the necessary trade-offs.

A simple proposal in place is NTM streamlining to the national level by implementing 'dynamic disciplines' that review trade and investment policy and regulations regularly. This could be started by establishing a National Economic Council (NEC) consisting of divisions on Trade Facilitation, Non-Tariff Measures, National Single Window, Investment and Trade Agreement/Economic Cooperation. National and regional disciplines on transparency are the key, and NTM mutual recognition and harmonisation are the answers.

CHAPTER 1

Collecting and Classifying Non-tariff Measures in ASEAN

Santiago Fernandez de Cordoba, Maxim Gubarev, Michelle Ayu Chinta Kristy, and Chi Le Ngo

United Nations Conference on Trade and Development

1.1. Background

Many developing countries have greatly benefited from the integration in the global economy through international trade in goods and services. In the past, developing countries' integration in international markets was made possible by appropriate policies such as tariff liberalization, as well as initiatives related to trade facilitation and aid for trade. Today, deeper integration in the global economy depends not only on liberal tariffs and supportive policies but increasingly requires policy responses to various forms of complex trade-related regional economic integration. The rising specialization and fragmentation of production led increasingly to trade in intermediate goods and in particular regional value chains.

Tariffs on regional trade are generally low, as they have been progressively liberalized, first under the auspices of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) and subsequently in the context of regional and bilateral preferential trade agreements. The Association of Southeast Asian Nations (ASEAN) member countries have made significant progress in the lowering of intra-regional tariffs. The fact that tariff liberalization alone has proven insufficient in providing genuine regional economic integration for many developing countries has drawn further attention to non-tariff measures (NTMs) as major determinants in developing economies growth. The use of NTMs, especially complex technical, and sanitary and phytosanitary measures, has spread significantly. ASEAN member countries have resolved to work on the elimination of non-tariff barriers.

1.2. NTMs and NTM data collection

A country's participation in regional and international trade in goods and services is affected by the combination of policies such as tariffs, quantity control measures, sanitary and phytosanitary restrictions, or technical regulations. In recent years, countries have not only significantly reduced tariff levels in most lines of products, but they have also been promoting trade facilitation, preferential market access, and aid for trade. Further attention is now drawn on non-tariff trade regulatory measures, or NTMs, which are considered to have an impact on the ability of countries to gain and to benefit from market access.

NTMs are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both (UNCTAD, 2010). NTMs thus include a wide and diverse array of policies that countries apply to imported and exported goods. Some NTMs are manifestly employed as instruments of commercial policy (for example, subsidies and trade defence measures), while others stem from non-trade policy objectives for example, public heath, food safety, and environmental protection). However, even legitimate NTMs that have non-trade objectives are thought to have important restrictive and distorting effects on international trade.

NTMs are of particular relevance to developing countries, especially the implications that NTMs have on their market access. One concern is that developing countries often have a more limited capacity and incur higher compliancy costs for meeting NTM requirements in their export markets. This is due to less advanced production process technology, weaker trade-related infrastructure, and inadequate export services. Another concern is that NTMs are frequently applied to product groups of particular export interest to developing countries. Evidence shows that small and medium size enterprises and countries as well as less developed countries are disproportionately affected by NTMs. Access to information is a significant challenge, as many developing countries do not always have the resources to assess the nature and implications of the NTMs that their exports face as well as of the ones they apply to their own imports.

Understanding the uses and implications of these trade policy instruments is crucial for the formulation and implementation of effective development strategies.

1.3. The need for NTM data collection

Despite the widespread use of NTMs, there is a significant transparency gap. Systematic and comparable information about the use of NTMs are generally not available. Furthermore, NTMs are complex and their effect on regional and international trade is often indirect and very case-specific. The scarce knowledge of the implications of NTMs is particularly troubling for policymakers, trade negotiators, and development agencies, which need information and analysis so as to direct their efforts for maximum gains.

Relevant information on NTMs generally originates from various regulatory agencies and is often buried in legal and regulatory documents, which makes the gathering of relevant data difficult and costly. The United Nations Conference on Trade and Development (UNCTAD) classifies and collects NTM data together with its partners and regional organizations from all over the world. UNCTAD leads and coordinates the global effort on NTMs, the Transparency in Trade Initiative.[1] The collected data are based on a comprehensive set of mandatory and official regulations that are currently imposed by the country and that affect imported or exported merchandise products. Detailed information for each NTM comprises the sources of information, the measures, and the affected products and countries that have been gathered and translated into a qualitative and quantitative database for easier access to all policy measures that might have an economic impact on trade.

1.4. The methodology and process of NTM data collection

The collection of data on NTMs requires the classification of legal documents (regulations, directives, and rules, among others) to appropriate predefined NTM codes. These codes are provided in the UNCTAD publication on the *Classification of Non-tariff Measures* (UNCTAD, 2013).

[1] Joint multi-year programme launched and implemented by UNCTAD, the World Bank, the International Trade Centre, and the African Development Bank.

The classification of NTMs was developed and agreed by several international organizations in the context of a multi-agency initiative on NTMs led by UNCTAD. The classification is designed to facilitate the collection, analysis and dissemination of data on NTMs, with the final objective of increasing transparency and understanding about the subject.

The data that are collected are official measures currently imposed by the country and that affect imported or exported products. As a rule of thumb, such measures would be checked at the customs point to allow entry or exit of the product. Every measure stemmed from the official mandatory regulations is to be collected and classified.

1.5. Scope, coverage, and disaggregation of measures

From the text of all official mandatory regulations, any policy measure, other than ordinary customs tariffs, which can have an economic effect on international trade, is collected and classified. The measures cover all topics and sectors such as Agriculture, Arms and Ammunition, and Pharmaceutical, of all Harmonized System (HS) codes ranging from Chapters 01 to 97, and of groups of products that are covered in international conventions such as the Rotterdam or Stockholm Conventions.

The NTM classification categorizes measures into 16 chapters (A to P) based on the purposes of the measures. Each chapter is further differentiated into groups and subgroups, with most chapters reaching the 2-digit level of disaggregation and others reaching the 3-digit level.

The last chapter, Chapter P, describes the measures imposed on exported products. Chapters A to O reflect the requirements of the importing countries for their imported products. Chapters A to C comprise technical measures: sanitary and phytosanitary measures (SPS), technical barriers to trade (TBT), and pre-shipment inspection as well as other formalities. Chapters D to O cover non-technical measures such as licensing, price control, subsidies, and rules of origin.

Box 1 presents the list of chapters with their brief descriptions.

Box 1: Description of Each Chapter in the Classification

Chapter A on SPS measures refers to measures affecting areas such as restrictions for substances, hygienic requirements, or other measures for preventing dissemination of diseases. It also includes all conformity assessment measures related to food safety, such as certification, testing and inspection, and quarantine.

Chapter B on technical measures refers to measures such as labelling and other measures to protect the environment. It also includes conformity assessment that relates to technical requirements such as certification, testing and inspection.

Chapter C classifies the measures related to pre-shipment inspection and other formalities performed in the exporting country prior to shipment.

Chapter D refers to contingent measures, which are measures implemented to counteract particular adverse effects of imports in the market of the importing country, including measures aimed at unfair foreign trade practices. They include antidumping, countervailing, and safeguards measures.

Chapter E includes licensing, quotas, and other quantity control measures, group measures that have the intention of limiting the quantity traded, such as quotas. It also covers those licences and import prohibitions which are not SPS or TBT related.

Chapter F includes price control measures, which are those implemented to control or affect the prices of imported goods in order to, *inter alia*, support the domestic price of certain products when the import prices of these goods are lower; establish the domestic price of certain products because of price fluctuation in domestic markets, or price instability in a foreign market; or to increase or preserve tax revenue. This category also includes measures, other than tariff measures, that increase the cost of imports in a similar manner (para-tariff measures).

Chapter G concerns finance measures, referring to measures restricting the payments of imports, for example when the access and cost of foreign exchange is regulated. This chapter also includes restrictions on the terms of payment.

Chapter H concerns measures affecting competition. These measures grant exclusive or special preferences or privileges to one or more limited group of economic operators. They refer mainly to monopolistic measures, such as state trading, or sole importing agencies, or compulsory use of national services or transport.

Chapter I concerns trade-related investment measures, group measures that restrict investment by requiring local content or requesting that investment should be related to export to balance imports.

Chapter J includes distribution restrictions, referring to restrictive measures related to internal distribution of imported products.

Chapter K concerns restriction on post-sales services, for example, restrictions in the provision of accessory services.

Chapter L contains measures that relate to subsidies that affect trade.

Chapter M containing government procurement restriction measures, refers to the restrictions bidders may find when trying to sell their products to a foreign Government.

Chapter N concerns restrictions related to intellectual property measures and intellectual property rights.[2]

Chapter O on rules of origin, groups the measures that restrict the origin of products, or their inputs.

Chapter P includes export measures, grouping the measures a country applies to its exports. It includes export taxes, export quotas, or export prohibitions.

Source: UNCTAD (2013).

[2] Please note that those trading activities involving imitations or copies are classified in Chapter E, under E315 for prohibition of copies or imitations of patented or trademarked products.

2. ASEAN NTM data collection and analysis project

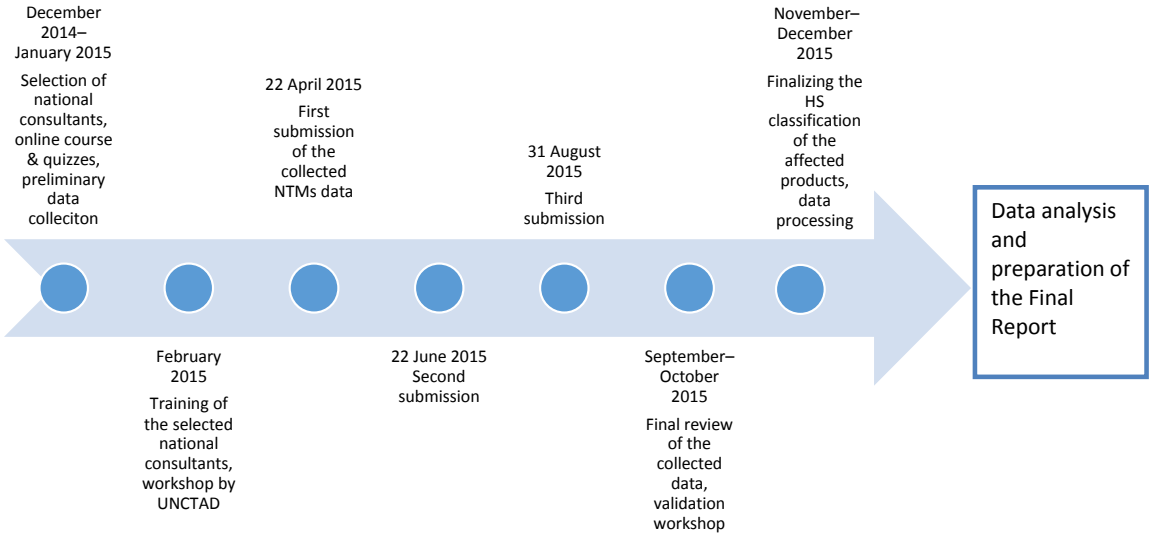
The ASEAN NTM data collection and analysis project (the project) is an ambitious yet fruitful team effort initiated by UNCTAD and the Economic and Research Institute for ASEAN and East Asia (ERIA). The project aims to conduct thorough studies of the trade-related legislation of all 10 ASEAN countries (Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam), to collect the NTM data and to classify the identified NTMs based on the aforementioned methodology. A rather unique nature of the project was predetermined by its scope, the diversity of the legal systems under consideration, accessibility of legal texts, as well as by tight deadlines targeted by ERIA and UNCTAD.

2.1. Project's timeline

The project was initiated in late 2014 through the signing of a memorandum of understanding between ERIA and UNCTAD with a desire to complete the undertaking by the end of 2015. The project was finished according to the schedule (Figure 1.1), while its active stage, including the collection and classification of the NTMs, took only 9 months, and successfully progressed into the data analysis stage.

The first 2 months were dedicated to the selection of national consultants and their training by UNCTAD experts. Over the next 7 months the local consultants were able to collect and register NTM data in three consecutive batches, while the UNCTAD team was engaged in reviewing the submissions and guiding the national consultants in incorporating UNCTAD comments and improving the quality of data collection. Over the last 3 months, the collected data were reviewed in their entirety, and multiple submissions were consolidated. Both the UNCTAD team and national consultants worked on ensuring legal comprehensiveness (including cross-checking of countries' international obligations under conventions and elimination of overlaps and duplication across multiple submissions by national consultants). A meticulous work of HS classification of the affected products was also accomplished in this stage.

Figure 1.1: Timeline of the Project



HS = Harmonized System; UNCTAD = United Nations Conference on Trade and Development.
Source: Prepared by the authors.

2.2. Methodology of the project

Selection of local consultants and training

As mentioned above, the project was a collective effort by ERIA, UNCTAD, and selected local consultants in each of the 10 ASEAN countries. From the inception of the project, both UNCTAD and ERIA shared a common understanding that the selection of highly qualified national consultants was the key to the project's success. Therefore, the best national trade think tanks and research institutions in ASEAN countries were contacted in order to identify suitable candidates. At the same time, ERIA and UNCTAD were also keen on obtaining support from the respective governments. The assistance from the authorities of each country proved to be a valuable asset for the project's comprehensiveness, which will be elaborated below.

The selected candidates of each ASEAN country had to take the UNCTAD online course on NTM data collection and pass an online exam. The objective of the course was to provide participants with the knowledge and tools required to identify, classify, and collect information about NTMs in their respective countries. The course included the following five modules: 'Introduction to NTMs and data collection', 'Classification of NTMs', 'Product classification', 'Guidelines for the collection of data on official NTMs', and 'Data classification and storage template'. The candidates with passing grades were invited to join the project and participate in the workshop conducted by UNCTAD.

Data collection

Upon the formation of the national teams, national consultants began the actual NTM data collection, which they submitted to UNCTAD for review in three batches over the span of 7 months. Each submission contained an Excel template, in which consultants registered all the identified NTMs with their appropriate NTM codes respectively, as well as the legislation containing those NTMs. For each submission the UNCTAD team provided thorough feedback, identified the shortcomings and revised the wrong entries. The identification of the relevant legislation as sources of NTMs, and the NTMs from the identified legislation was conducted through several methods: (i) research in the publicly available sources, trade portals, legal databases, and official gazettes, among others; and (ii) queries to the relevant government authorities.

Scope of the project

The scope of consultants' work was limited to Chapters A-I (SPS and TBT measures; pre-shipment inspection and formalities; non-automatic licensing, quotas, prohibitions, and quantity-control measures other than for SPS and TBT reasons; price-control measures, including additional taxes and charges; finance measures; measures affecting competition; trade-related investment measures); and Chapter P (export-related measures). UNCTAD used its own resources to cover Chapter D (contingent trade protective measures).

Difficulties encountered

The quality of submissions varied from country to country. However, the major obstacle in achieving uniformity, coherence, and comprehensiveness of the collected data often lay beyond the control of the national consultants. While supervising the consultants, UNCTAD encountered the following difficulties:

1. Limited access to implementing regulations

   In some countries, a general regulation may be governed further by a few implementing regulations, which might not be readily available in the public domain or not available to the public at all. This situation implies difficulty to collect and register corresponding NTM data. Such situations revealed the importance of the established cooperation between ERIA, local consultants, and national government authorities.

2. Development level of legal systems

The legal systems in the 10 ASEAN countries are not equally developed. In the case of Myanmar, for example, the country is currently in the process of revision and reconstruction of its whole legal system. Presently, its legal system is a combination of laws from several different epochs of state development, that is, British rule, those from the time of military rule, and the most recent democratic transition periods. Accordingly, the laws are available both in English and Burmese. Those in Burmese are often a mere translation of the previous English written laws. Though such 'translated' laws could introduce certain addenda to the British Burma legislation, the former does not necessarily revoke the latter. Such a situation creates an obstacle for the project, as it is not clear what scope of laws the consultant needs to collect and analyse (legal comprehensiveness).

3. Structure of legislation

Depending on the level of legal development, the legislation in the ASEAN countries vary from non-systemized and scattered collections of legal acts to well-codified and coherent systems of norms. While this project did not aim to evaluate legal systems or suggest any improvements, the aforementioned diversity often does not fit into the system of measures/regulations/documents registration developed by UNCTAD. This system implies that certain NTMs are to be found in a regulation, which forms a part of an issued government document (code and/or decree, among others). This model, common among many countries around the world, is not necessarily the same in certain ASEAN countries, where an NTM can be a single measure established under a decree enacted specifically for this NTM. In such a situation, the terms 'measure', 'document', and 'regulation' may overlap, which does not provide for the technical ease of registering NTMs and corresponding documents and regulations.

Ensuring legal comprehensiveness

Legal comprehensiveness, that is, the entirety of collected laws and regulations, including international obligations of each country containing NTMs, was a pivotal point in conducting the project. The UNCTAD team, together with national consultants, used several tools in order to ensure the comprehensiveness of the data collected. These tools included:

Trade Policy Reviews (TPRs) of the WTO: WTO TPRs are useful tools to identify the scope of the relevant regulatory framework. They were the starting point of research for all ASEAN countries except Lao PDR, for which no TPR has been conducted to date.

Generally regulated product groups: Based on the experience of UNCTAD experts, a list of generally regulated products was established. This list includes the following product groups: food products, animals and animal products, plants and plant products, endangered species, controlled and hazardous chemicals, pharmaceutical products, medicines and drugs, narcotics and psychotropic substances and precursors, biological materials, ozone depleting substances, pesticides, fertilizers, motor vehicles, radio-transmitting equipment, diamonds and other precious stones and metals, tobacco products, alcoholic beverages, hazardous wastes, arms, ammunition, explosives, nuclear materials, and dual use products. If, while reviewing the collected data, an UNCTAD expert did not find any NTMs imposed on one of the products in the list, a national consultant conducted additional research regarding the uncovered product.

International conventions: All of the ASEAN countries are members to several international conventions imposing certain restrictions/requirements on importation/exportation of certain products/substances. Depending on the legal system, ASEAN countries either recognize direct application of those treaties domestically, or incorporate them by passing domestic legislation that gives effect to the treaties. Some countries chose an intermediate approach. Regardless of the type of the particular legal system, the project's task was to identify all NTMs deriving from a country's international obligations. Among such treaties, special attention was paid to the Montreal Protocol, the Chemical Weapons Convention, the Basel Convention, the Rotterdam Convention, the Stockholm Convention, the Kimberly Process, the CITIES Convention, the Single Convention on Narcotic Drugs, the Convention on Psychotropic Substances, and the Convention against Illicit Traffic on Narcotic Drugs and Psychotropic Substances.

Finally, the UNCTAD team conducted thorough cross-checking in order to eliminate all the possible duplications of similar measures and double counting.

Data processing and dissemination

The last step in the ASEAN NTM data collection methodology relates to data processing and dissemination. Before they can be made public, the collected NTM data are further processed and normalized by UNCTAD experts and then loaded in a central SQL server database, the UNCTAD Trade Analysis Information System (TRAINS). This process ensures the coherence of submitted NTM data between all worksheets. It is also needed to guarantee the referential integrity with existing data in the central database and to make sure that all dimensions conform to reference tables such as country codes or national product classifications. Any inconsistency causes a failure in the uploading of the data into the TRAINS database and consequently requires another review of the data.

The NTM data are then disseminated from the TRAINS database to several web applications, *inter alia*:

1. World Integrated Trade Solution (WITS)
   WITS is a web application developed by the World Bank to provide access to several international databases on merchandise trade, tariffs, and NTMs such as the United Nations (UN) Commodity Trade Statistics Database (COMTRADE), UNCTAD TRAINS, and the WTO Integrated Data Base (IDB). WITS is accessible at wits.worldbank.org/

2. Integrated Trade Intelligence Portal (I-TIP)
   I-TIP is a WTO application that has been shared with UNCTAD to provide comprehensive information on official NTMs applied in merchandise trade as well as analytical tools. WTO I-TIP and UNCTAD ITIP are available at www.i-tip.org/ (the UNCTAD version was launched in early 2016). The ASEAN NTM data are available at http://asean.i-tip.org/ .

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CHAPTER 2

Non-Tariff Measures in ASEAN: A Simple Proposal[3]

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1. Introduction

After close to 70 years of trade liberalization, a series of recent events suggests that the tide may well be turning. International trade as a proportion of global gross domestic product (GDP) has stopped growing in the last decade, in what Constantinescu et al. (2015) dub the 'Great Trade Slowdown'. Momentum for trade liberalization at the multilateral level has stumbled on the Doha round's failure, with limited hopes for revival. Even regional trade agreements, sometimes seen as alternatives to multilateral liberalization, are under heavy attack by politicians of all strides in the United States, traditionally the bulwark of free trade. Last but not least, while the 2008–2009 global financial crisis did not lead to the explosion of protectionism feared by many, the use of temporary trade measures by emerging countries has been markedly rising (Didier et al., 2016).

In a volatile international political context, these converging trends should be taken seriously. A cycle of globalization followed by a political backlash would be nothing new: between 1870 and 1890, a rise of protectionist forces in all advanced countries nearly brought to an end the cycle of globalization that had started in the middle of the 19th century. If trade kept on growing because of shrinking transport costs, all countries except the United Kingdom erected stiff trade barriers (Bairoch and Kozul-Wright, 1996) and,

[3] The authors are grateful for the discussion with ASEAN Senior Economic Officers.

more ominously, a semantic drift in political discourses led from protectionism to xenophobia and, ultimately, war.

One key difference between now and then is the existence of the World Trade Organization (WTO) and of its treaties, which today impose disciplines on what countries can and cannot do, together with better knowledge of the harm that protectionism can do. However, there is one area where WTO disciplines are comparatively weak: non-tariff measures (NTMs).

NTMs are defined in general as policy measures, other than tariffs, that can affect international trade. The term covers sanitary and phytosanitary (SPS) regulations, technical barriers to trade (TBT) regulations, and a wide and diverse array of policy interventions affecting trade flows and prices such as, *inter alia,* rules of origin, licensing, price-control measures, or distribution restrictions (UNCTAD, 2013). While many NTMs stem from non-trade policy objectives (for example, food safety or environmental protection), they can also be used as instruments of commercial policy; even NTMs pursuing legitimate, non-trade objectives can have restrictive or distortionary effects on international trade.

NTMs are more complex policy instruments than tariffs not just because of multiple objectives: They are also, in themselves, technically complex (this is particularly true, for instance, of technical and sanitary regulations). Moreover, unlike tariffs that have essentially rent-shifting effects, NTMs can affect market structure in intricate ways (Asprilla et al., 2016). Their opacity, the indirect nature of their effects, and the frequent involvement of the private sector in their design make them vulnerable to capture by special interests, in particular in view of the relatively weak disciplines that the WTO imposes on them.

Disciplines on regulations were established during the Uruguay Round, in particular in the SPS and TBT agreements. For instance, Article 5.2 of the SPS agreement requires sanitary regulations to be science-based. Likewise, the TBT agreement requires technical regulations to be necessary and proportionate to the problem at hand. Taken seriously, those disciplines are not trivial; in some cases they can even go against consensual societal choices, as in the case of the European Union's (EU) hormones regulation. However, many measures can still go under the radar screen; most importantly, the system has not been tested against a general breakdown of goodwill. Thus, in a deteriorating political

environment, NTMs might prove to be a weak spot of regional and multilateral trading systems.

For all the danger of hidden protectionism, an exclusive focus on the effect of NTMs on trade and doing-business costs may miss an important part of their motivation and may even run contrary to equally important public policy objectives. In a trend that started in industrial countries and has since spread around the world, public demand for insurance against health, consumption-related or environmental hazards has been rising (Vogel, 1996), leading to increased 'regulatory demand'. Failure to respond to this public demand because of real or alleged trade constraints would only fuel the current anti-globalization backlash.

The message of this chapter is that the solution to this dilemma is not to try – yet again – to 'negotiate down' NTMs, but rather to take the issue back to the country level and to embed it in a drive for better regulations. As the WTO's 'static' (rules-based) disciplines may not prove sufficient to ensure that regulations correctly balance regulatory demands against economic efficiency, we argue that 'dynamic' disciplines should be put in place in the form of quality control on regulatory processes. By quality control, we mean essentially two things. First, good regulations should pass a basic test of economic rationality, that is, set correct incentives from a societal point of view. This would weed out most of the regulations pushed by special interests against the common good. Second, they should fully internalize externalities between different areas of government intervention, trade-related or not; for instance, the productivity gain expected from a subsidy to agricultural inputs (pesticides and fertilizers) should be balanced against its environmental cost. Few governments have structures in place to do this kind of trade-offs explicitly.

Institutionally, the quality-control systems we advocate would take the form of regulatory supervision bodies or National Economic Council (NEC), possibly building on the NTM committees set up under the WTO's Trade Facilitation Agreement, with strong in-house analytical capabilities and the power to review and screen all existing and proposed regulations. This is the direction that Cambodia, Myanmar, and Lao People's Democratic Republic (Lao PDR) have been taking recently.

Because of the externalities that NTMs exert on trade partners, regional bodies such as the ASEAN Secretariat could play a key role in encouraging and coordinating the creation of NEC and providing common training to their staff (with support from

development partners), thus fostering a climate of regional cooperation at the technical level. In turn, technical cooperation in the design and review of regulations would facilitate the emergence of 'regulatory convergence' and thus contribute to make regional agreements mutually compatible.

Last but not least, as recent research underscores the impact of NTMs on market structure, NEC should ultimately be merged with competition commissions in order to coordinate regulatory and anti-trust supervision, which deal with similar issues and draw on similar staff skills. Combined regulatory and antitrust supervision bodies would have more resources and clout, having a balanced view and mandate to discipline both the private and the public sectors.

Against this background, this chapter provides an overview of the state of play in the Association of Southeast Asian Nations (ASEAN) member states in the area of NTMs[4], together with an outline of the proposed policy architecture. Section 2 discusses conceptually the channels through which NTMs affect trade and market structure. Section 3 describes recent trends in tariffs and non-tariff measures in ASEAN, detailing non-tariff measures in ASEAN by type of NTM, issuing agency, and product. Section 4 outlines our key policy proposal. Section 5 concludes.

2. How NTMs affect trade and market structure

The costs imposed by NTMs on businesses can be decomposed into three broad classes: enforcement costs, sourcing costs, and process-adaptation costs. In this section, we argue that these costs affect simultaneously trade flows and market structure. Beyond 'economies of scope' at the level of supervisory agencies, this linkage between trade and market-structure effects is our rationale for proposing joint regulatory and antitrust supervision.

Enforcement costs relate to the effort that private companies must expend to show compliance with NTMs. This may involve staff devoted to processing paperwork, inspections by officials from enforcement agencies, or efforts to encourage the certification of foreign suppliers under national standards. Because these costs are largely fixed, they weigh more heavily on small firms than on larger ones. They might also weigh

[4] A previous study on NTMs in ASEAN using the 2009 ASEAN NTM database, Cadot, et al., 2015.

more heavily on foreign firms less familiar with local administrative processes, although foreign firms tend to be larger ones who can purchase legal/consulting assistance locally. Thus, through enforcement costs, NTMs may affect differentially local vs. foreign firms and small vs. large ones.

Sourcing costs are generated by the switch from low-grade intermediate sources to high-grade ones in order to meet NTM standards. A given standard can have different effects depending on products and users. For instance, Indonesia's steel standard, adopted in 2009, set maximum levels of carbon, manganese, phosphorous and sulphur for flat products and hot-rolled coils. For users of low-grade long products in the construction sector (Harmonized System [HS] code 7207), the standard was binding and involved changes in procurement choices. By contrast, for users of high-grade flat products in the automobile industry (HS code 7208), company standards were generally higher than those mandated by the regulation, so no sourcing changes were involved. In their case, supplier certification requirements, being redundant, were perceived as just a nuisance.

Sourcing costs are essentially variable costs, as they affect every unit produced. If the standard is non-discriminatory, they affect domestic firms and importers in the same way. However, intermediate producers from different countries may have unequal abilities to comply with NTMs due to variations in the effectiveness of national SPS and quality infrastructure. As a result, an NTM may affect sourcing patterns with complex effects. For instance, Mauritius' regulation on pigments used in paints forced domestic producers to switch from their traditional supply sources to more expensive German-made pigments. In general, Disdier et al. (2015) show that harmonization clauses in North-South agreements, which typically mean a stiffening of standards for the Southern partners, tend to reduce South-South trade. This 'shutting-door' effect on imports from Southern third-party suppliers may be so large as to raise the profitability of home intermediate producers, as was the case in Morocco after harmonization with EU standards (Augier et al., 2016).

Process-adaptation costs relate to changes in capital equipment needed to meet NTM standards. For instance, dairy standards force farmers to buy expensive equipment to ensure that milk is not contaminated by bacteria before being pumped into tank trucks. Investment in compliant capital equipment typically requires also the upgrading of operator skills. These costs are similar to the costs typically incurred by firms when they

start exporting. They involve the hiring of white-collar workers and engineers and, most importantly, higher skill levels in every occupation (Verhoogen, 2008; Bustos, 2011).

Process-adaptation costs are essentially fixed costs and therefore affect small firms more than larger ones, again potentially affecting market structure. This market-structure effect can interact in subtle ways with traditional rent-shifting effects. To see this, consider a world with symmetric firms and transport costs. Because of transport costs, firms sell systematically smaller volumes on their export markets than on their home markets. Suppose now that each country sets a particular (different) standard. Then firms spread country-specific process-adaptation costs on smaller volumes on their export markets than on their home markets; it is as if home firms were always larger than foreign ones, in spite of the initial symmetry. In that case, NTMs mechanically generate a home bias even if they are not *de jure* discriminatory. The picture becomes more complex with heterogeneous firms, as process-adaptation costs induce the exit of the smallest firms, both foreign and domestic, allowing larger ones (again both foreign and domestic) to expand market shares. As a result, foreign firms may find themselves better off, a conjecture that is documented empirically by Asprilla et al. (2016).

If quality upgrading takes place on a sufficiently large scale in the economy (say, because a wave of new NTMs are adopted following a trade agreement) the complementarity between recent-vintage capital and skills can raise the skill premium in the whole economy, resulting in a widening of wage inequalities between educated and non-educated workers. This effect, documented in the case of an expansion of export opportunities by Bustos (2011), can induce a sorting of firms, with the largest upgrading and expanding, while the smallest are forced to exit, squeezed by the NTM's requirements and the rising cost of skilled manpower.

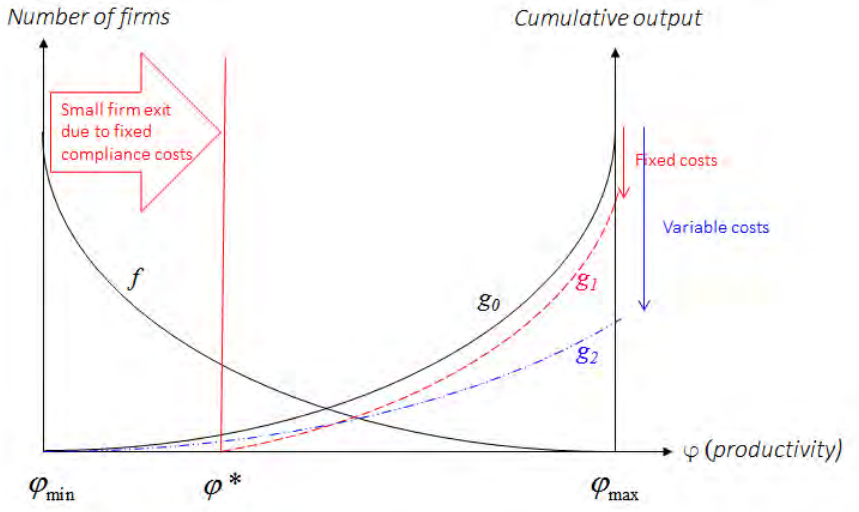
While the scale of these effects varies across contexts and is, as yet, not widely documented, a good rule of thumb is that variable costs matter for aggregate trade flows while fixed costs matter for market structure.

The underlying reasoning is illustrated in Figure 2.1. Consider a two-country world where country *A* imposes an NTM affecting *B's* exporters. Figure 2.1 plots the frequency of *B's* exporters *(f)* and the corresponding cumulative trade flow *(g)* as a function of a parameter φ indexing both their productivity and their size. The shape of *f* is chosen to correspond loosely to a Pareto distribution (Freund and Pierola, 2015); intuitively, as φ

increases, the density of firms goes down (there are fewer firms at high levels of productivity). By contrast, *g* is upward-sloping and concave because, as one adds increasingly larger/more productive firms, each contributes more and more to aggregate output.

Figure 2.1 illustrates qualitatively the NTM's effect on fixed and variable costs. An increase in fixed costs induces the exit of firms between φ_{min} and φ^*, shifting the *g* function horizontally from g_0 to g_1. This extensive-margin effect alters the market's structure. However, even if the exit movement is large (as shown), the effect on trade flows is small because the exiting firms represent a small fraction of the aggregate flow (although the horizontal shift of the *g* function is large, it vertical shift is small). By contrast, an increase in variable costs affects the whole distribution, rotating *g* from g_0 to g_2, including the top firms that account for the bulk of trade flows.[5] Thus, market structure does not change (all firms reduce their flows proportionately), but aggregate flows change markedly.

Figure 2.1: Fixed-cost and Variable-cost Effects with Heterogeneous Firms



Source: Cadot and Ing (2015).

The argument illustrated above has important implications for the empirical analysis of NTMs and its policy implications. Currently, practically all work on NTMs is focused on estimating their ad-valorem equivalents (AVEs) based on how they affect trade flows. The idea is to use AVEs estimated by product and country as a basis for the

[5] Freund and Pierola (2015) document that the top 1 percent of firms account for roughly half of export flows.

calculation of welfare gains to be expected from trade agreements through the use of computable general equilibrium (CGE) models, and as a basis for negotiated reductions. This approach can be misleading due to:

First, as illustrated here, effects on trade flows are only part of the story; effects on market structure may be equally important. In other words, a 10 percent reduction in trade flows can have very different implications if it is an equi-proportionate reduction in the exports of all active firms or if half the firms exit the market, leaving the remaining ones with expanded market shares and reinforced market power (Asprilla et al., 2016).

Second, AVEs measure only the gross costs of NTMs, although the WTO's necessity and proportionality tests logically imply that society should be concerned by their net cost, that is, by the difference between regulatory costs and benefits.[6] The benefits of SPS regulations can be, for instance, fatalities and diseases avoided, which can be priced statistically through a variety of techniques (see for example, Hall and Jones, 2007). Likewise, environmental benefits can be evaluated for example, through the valuation of ecosystem services (Pearce et al., 2006). However, in spite of the availability of analytical tools, regulatory benefits are rarely quantified (Renda et al., 2013). With only one-sided quantification, NTM rankings in terms of their gross costs (AVEs) could be very distorted, leading to biased CGE estimates of the welfare gains from trade agreements. As a result, CGE estimates may provide poor guidance to policymaking and hence to negotiations. AVEs estimates of NTMs should be accompanied by benefit analyses to be included in CGE/GTAP simulations.

All in all, our message here is that NTMs, which are currently viewed primarily through a trade-only prism, might well be viewed instead from a triple angle: (i) trade (the traditional one), (ii) competition policy, and (iii) public-good provision and valuation. Against this background, we now turn to a description of the state of play in ASEAN in terms of NTMs.

[6] The recall of nearly eight million vehicles from ten automakers including Toyota and of more than five million from Honda since 2013, through national and regional actions for the potentially deadly Takata airbag inflators, the 2015 discovery of Volkswagen's large-scale cheating with US emissions tests, or Singapore's February 2016 ban on Mars chocolate products due to the possible presence of plastic, serve as reminders that regulatory benefits (or, alternatively, the costs of non-enforced or ineffective regulations) might well be substantial relative to lost 'Harberger triangles'.

3. Recent trends in tariffs and non-tariff measures in ASEAN

Import tariffs have been successfully reduced through multilateral and regional negotiations, with ASEAN tariffs declining from 8.9 percent in 2000 to 4.5 percent in 2015. By 2010, tariffs had been outright eliminated on 98 percent of the product lines in the ASEAN-6 countries[7], with Cambodia, Lao PDR, Myanmar, and Viet Nam to follow by 2018.

In spite of these tariff reductions, intra-ASEAN trade increased merely from 23.0 percent of member states' total trade in 2000 to 25.3 percent in 2014, with ASEAN Trade in Goods Agreement preferences suffering from chronic under-utilization. Besides rules of origin (Cadot and Ing, forthcoming), NTMs, whose number swelled from 1,634 to 5,975 between 2000 and 2015 may be the 'missing factor' explaining the slow rise of intra-ASEAN trade.

Indeed, most traded products are today covered by one measure or another. Table 2.1 shows coverage ratios, that is, the percentage of imports covered by one measure or another, using whichever source of trade data is available (direct or mirrored). Coverage ratios are all high, with a number of countries having all imports covered (100 percent coverage ratios).

Table 2.1: NTM Import Coverage Ratios in ASEAN, 2015

	NTM Coverage (simple average)[a]	NTM Coverage (weighted average)[b]	Trade Year Used[c]	Remarks
Brunei Darussalam	65%	57%	2014	
Cambodia	100%	100%	2014 (mirrored)	NTMs on all products since 2008
Indonesia	75%	70%	2014	
Lao PDR	100%	100%	2014 (mirrored)	NTMs on all products since 2012
Malaysia	71%	69%	2014	
Myanmar	42%	42%	2014 (mirrored)	
Philippines	100%	100%	2014 (mirrored)	NTMs on all products since 1976
Singapore	100%	100%	2014	NTMs on all products since 1999
Thailand	100%	100%	2014	NTMs on all products since 1992
Viet Nam	100%	100%	2014	NTMs on all products since 2007

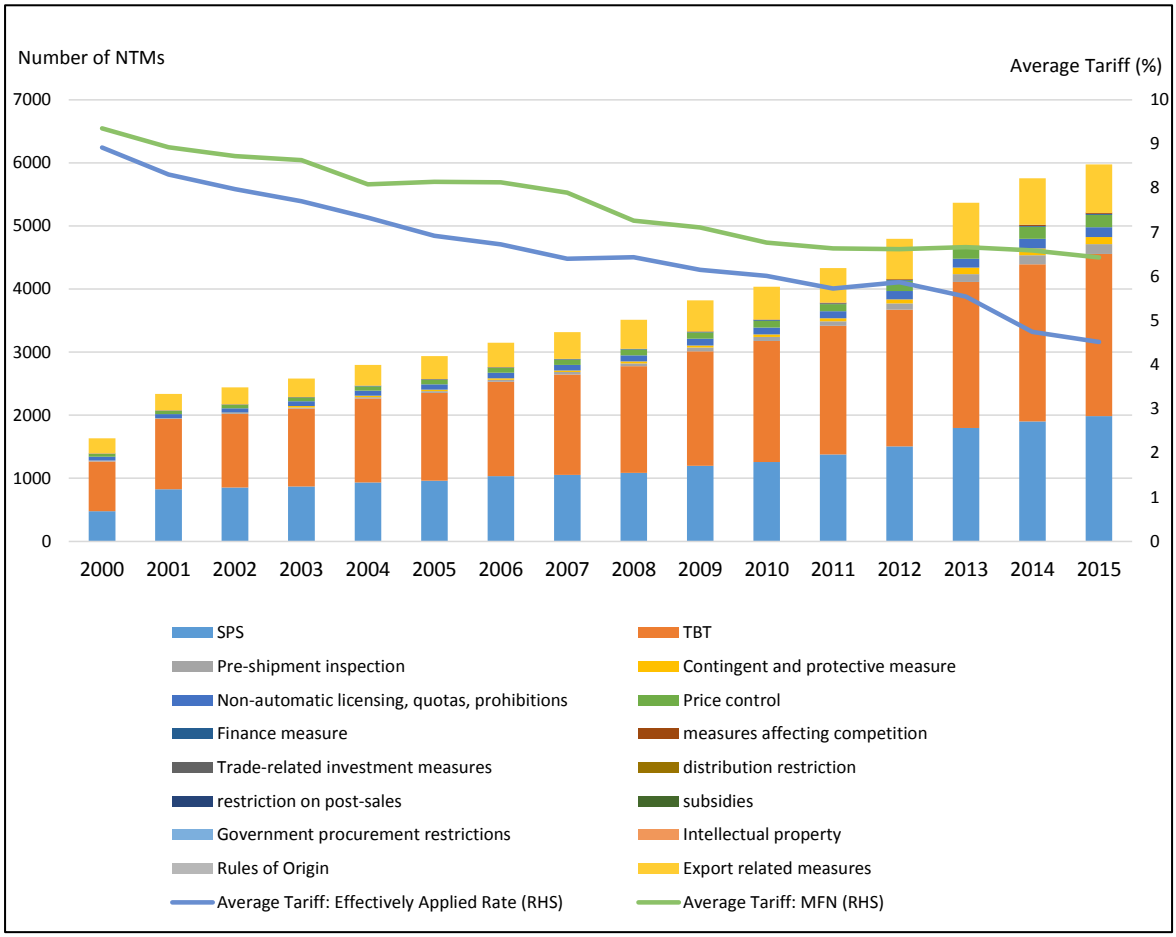
ASEAN = Association of Southeast Asian Nations; Lao PDR = Lao People's Democratic Republic; NTM = non-tariff measure.

Notes:
[a/] Simple tariff line means we treat 1 NTM in national tariff line as 1 NTM in 6-digit Harmonized System (HS) code.
[b/] Weighted tariff line means we treat 1 NTM in national tariff line as 1 divided by number of national lines in the respective 6-digit HS code.
[c/] Trade year used is based on latest available import data for HS-6 digit from WITS, World Bank.

[7] The ASEAN-6 are Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

ASEAN's high coverage ratios reflect a spectacular rise in the number of NTMs during a period where tariffs, both most favoured nation (MFN) and preferential, were steadily cut (Figure 2.2). One can read the scissor-blade movement in tariffs and NTMs apparent in Figure 2.2 in two alternative ways, with sharply different implications.

Figure 2.2: Trends of Tariff and Non-tariff Measures in ASEAN, 2000–2015



ASEAN = Association of Southeast Asian Nations; NTM = non-tariff measure; SPS = sanitary and phytosanitary; TBT = technical barriers to trade.
Source: Authors' calculation based on 2015 ASEAN-ERIA-UNCTAD Database.

First, the number of NTMs could have risen as a substitute for shrinking tariffs. The substitutability of tariffs and non-tariff barriers (NTBs) is an old idea in trade theory and empirics (Deardorff and Stern, 1997). The idea is that, as tariffs are constraints by bindings (although, for many developing countries, there is substantial water in the tariffs) or by regional commitments, countries may resort to NTBs to perform an equivalent protectionist function. Observing such substitutability in ASEAN data between tariffs and the broad array of measures called NTMs (which include many measures that are not NTBs)

might betray an intention to use them as trade-protection instruments to replace tariffs; we will call this the 'political-economy (PE) hypothesis'.

Alternatively, shrinking tariffs (opening up) and expanding numbers of NTMs (regulatory expansion) are two parallel symptoms of a modernizing economy, with consumers demanding both more product variety and more product safety. This hypothesis is in line with both theory and empirics. It has been observed that the average unit value of a country's imports tends to rise with its level of income (Hummels and Lugovskyy, 2009). Thus, with or without standards, consumers naturally tend to switch to higher-quality and safer products when their incomes rise. Expanding regulations may simply reflect this shift in preferences, as risk-averse regulatory agencies seek to minimize the risk of incidents in increasingly mediatized and safety-sensitive environments. As for the negative relationship with tariffs, first note that trade liberalization may reflect a growing demand for product variety as incomes rise. In that case, the correlation between trade liberalization (decreasing tariffs) and regulatory inflation would reflect a common factor (rising income). But there may be also a direct causal mechanism. As trade liberalization leads to more variety in terms of import sources, quality heterogeneity can be expected to rise (unit values vary not just by importer income but by exporter income as well; see Schott 2004, and Bernard et al., 2011); in particular, as market access improves for low-income exporters with deficient SPS and product-safety infrastructure, importing countries may choose to scrutinize imports more carefully. In that case, trade liberalization leads to import-quality heterogeneity which itself causes regulatory controls. Whether due to a common factor or to a direct causal mechanism, we will call this the 'income-effect (IE) hypothesis'.

The breakdown by type of measure shown in Figure 2.2 helps to discriminate between the PE and IE hypotheses. Under the IE hypothesis, NTM inflation should be attributable primarily to instruments targeting the quality of products – SPS and TBT regulations. Figure 2.2 shows that this is true on average; indeed SPS and TBT measures together account today for 76.3 percent of the stock of NTMs (Table 2.2 and 2.3).

Table 2.2: NTMs by Type in ASEAN, 2015

Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	1,984	33.2%
B	Technical barriers to trade TBT)	2,573	43.1%
C	Pre-shipment inspection and other formalities	153	2.6%
D	Contingent trade protective measures	112	1.9%
E	Non-automatic licensing, quotas, prohibitions and quantity control measures other than SPS or TBT reasons	159	2.7%
F	Price control measures including additional taxes and charges	195	3.3%
G	Finance measures	15	0.3%
H	Measures affecting competition	16	0.3%
I	Trade-related investment measures	0	0.0%
J	Distribution restrictions	2	0.0%
K	Restriction on post-sales services	0	0.0%
L	Subsidies (excluding export subsidies under P7)	0	0.0%
M	Government procurement restrictions	0	0.0%
N	Intellectual property	0	0.0%
O	Rules of origin	0	0.0%
P	Export-related measures	766	12.8%
Total coded NTMs		5,975	100%

ASEAN = Association of Southeast Asian Nations; NTM =non-tariff measure.
Source: Authors' calculation based on the 2015 ASEAN–ERIA–UNCTAD Database.

Table 2.3: NTMs by Type and by Country in ASEAN, 2015

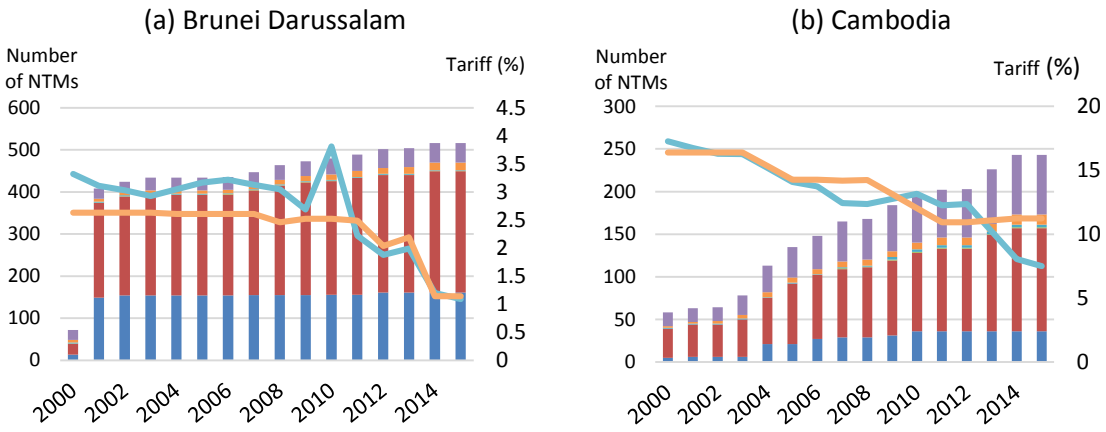
Country	Total (number)	SPS (%)	TBT (%)	Export-related Measures (%)	Others (%)
Brunei Darussalam	516	31	56	9	4
Cambodia	243	15	50	29	7
Indonesia	638	20	51	12	18
Lao PDR	301	13	30	27	30
Malaysia	713	36	47	10	7
Myanmar	172	44	24	20	12
Philippines	854	27	42	17	13
Singapore	529	24	59	9	7
Thailand	1630	48	34	8	9
Viet Nam	379	37	37	17	8
Total/average	5,975	29	43	16	12

ASEAN = Association of Southeast Asian Nations; Lao PDR = Lao People's Democratic Republic; NTM = non-tariff measure; SPS = sanitary and phytosanitary; TBT = technical barriers to trade.
Source: Authors' calculation based on the 2015 ASEAN–ERIA–UNCTAD Database.

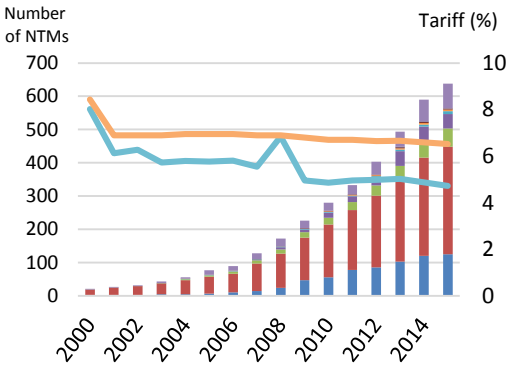
Figure 2.3 reproduces Figure 2.2 by ASEAN member country. Trends by county offer a diverse picture in terms of profile and timing of the decrease in tariffs and concomitant rise in NTMs, although the overall trend is qualitatively the same for many. Interestingly, Singapore has seen a rise in the number of its NTMs (today, Singapore has 529 measures covering the entirety of its imports) even though it had no tariffs to eliminate at the start (Singapore, a service economy, also has relatively few manufacturing jobs to protect). Thus, the PE hypothesis cannot hold in the case of Singapore. Indonesia, Malaysia, and the Philippines are three cases of moderate decreases in preferential tariffs with largely unchanged MFN ones. In all three cases, the rise in the number of NTMs has been steady, albeit from a high base in Malaysia. Cambodia, Viet Nam, and Thailand have undergone more energetic tariff reductions as all three started from high levels. They have also had substantial rises in the number of NTMs. Other cases (Myanmar, Lao PDR, Brunei Darussalam) are in between or have idiosyncratic profiles.

In terms of composition, the rise in NTMs is driven by SPS and TBT measures in the Philippines, Singapore, Thailand and Viet Nam. By contrast, in Cambodia, Indonesia, Myanmar, and Lao PDR, export-related and other measures that have nothing to do with product safety have also been on the rise, suggesting more support for the PE hypothesis.

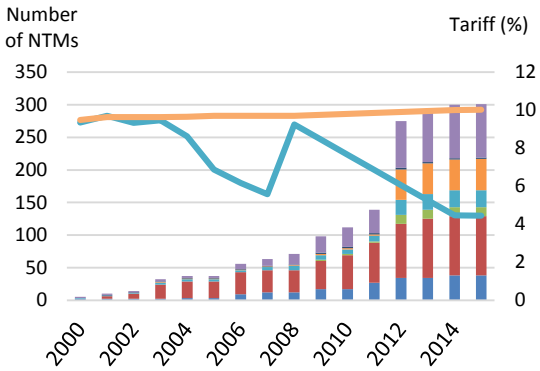
Figure 2.3: Tariffs and Non-tariff Measures by ASEAN Member, 2000–2015



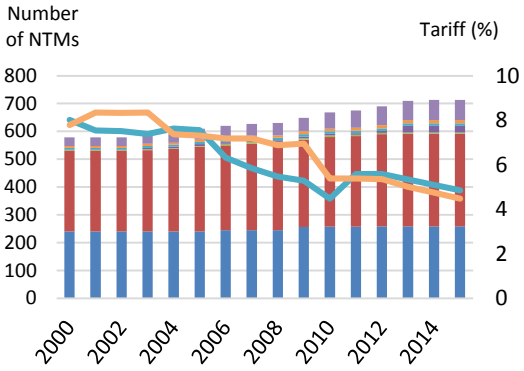
(c) Indonesia



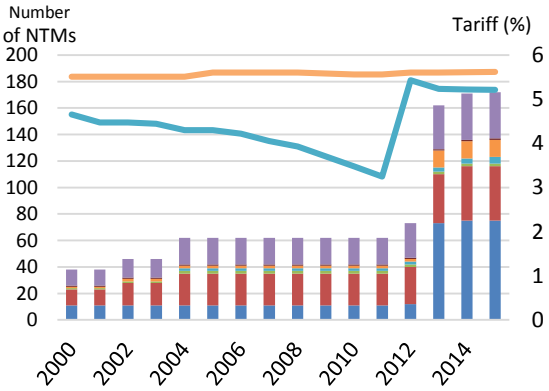
(d) Lao PDR



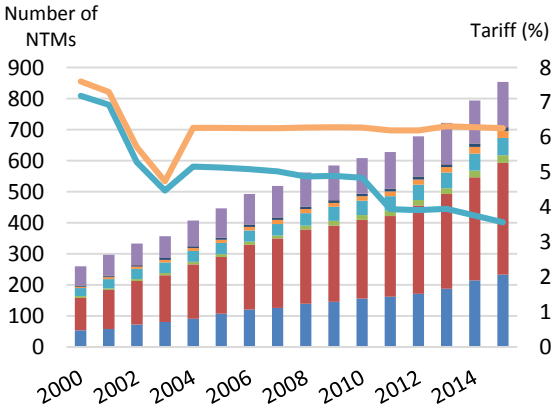
(e) Malaysia



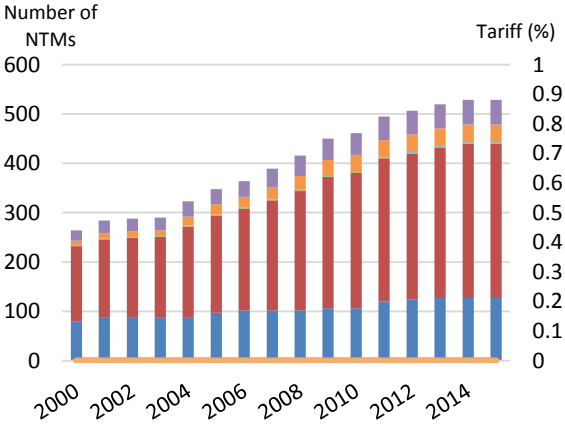
(f) Myanmar



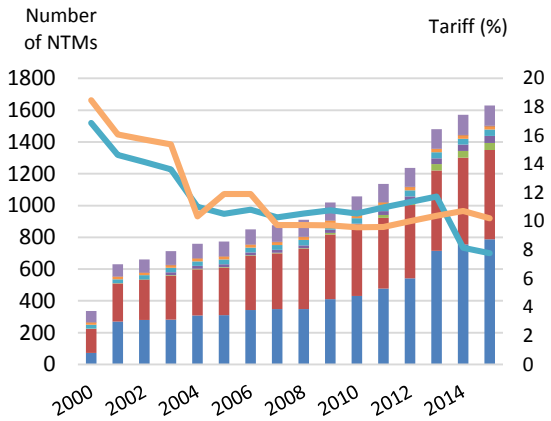
(g) Philippines



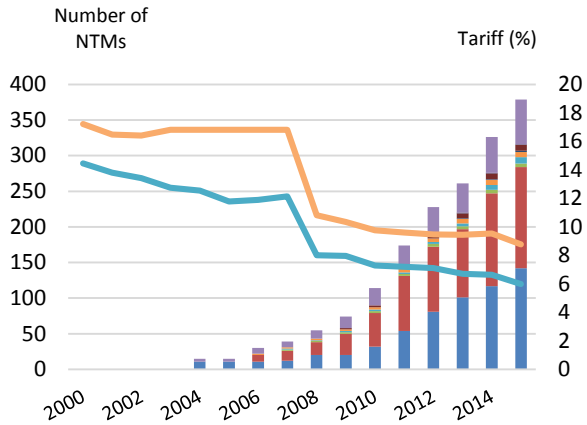
(h) Singapore



(i) Thailand



(j) Viet Nam



ASEAN = Association of Southeast Asian Nations; Lao PDR = Lao People's Democratic Republic; NTM = non-tariff measure.
Note: Number of NTMs measured on the LHS; tariff (in %) measured on the RHS. Colour coding of NTMs and tariff types is as in Figure2.2.
Sources: Authors' calculations based on COMTRADE data on tariffs and 2015 ASEAN–ERIA–UNCTAD NTM Database.

A breakdown of the number of measures by product category in Table 2.4 also suggests a mixed picture. Among the most heavily regulated products (three or more NTMs), one finds both products that are clearly sensitive from a public-health perspective (animal products, foodstuffs, chemicals) but also products where the rationale for state regulation is less clear. For instance, machinery/electrical equipment covers sensitive products such as consumer electrical equipment and appliances but also machinery, a highly differentiated category of products typically purchased by corporate buyers with the capability to assess quality by themselves, perhaps even better than government agencies. Yet it is one of the most heavily regulated sectors. It is also, together with automobile (another heavily regulated sector) an important provider of jobs in middle-income countries, and hence a strategic sector from a PE perspective. Textiles is also an economically strategic sector but one where safety standards are of secondary importance; yet it is substantially affected by NTMs.

Table 2.4: NTMs by Product Group and by Number of Measures in ASEAN, 2015

HS Code	Product Group	Affected by 1 NTM	Affected by 2 NTMs	Affected by 3 NTMs or more
01-05	Animal & animal products	0%	0%	7%
06-15	Vegetable products	0%	0%	8%
16-24	Foodstuffs	0%	0%	6%
25-27	Mineral products	0%	0%	2%
28-38	Chemicals & allied industries	2%	2%	9%
39-40	Plastics/rubbers	1%	1%	2%
41-43	Raw hides, skins, leather, & furs	0%	0%	1%
44-49	Wood & wood products	0%	1%	6%
50-63	Textiles	1%	2%	6%
64-67	Footwear/headgear	0%	0%	0%
68-71	Stone/glass	1%	1%	1%
72-83	Metals	1%	2%	4%
84-85	Machinery/electrical	3%	6%	11%
86-89	Transportation	1%	1%	5%
90-99	Miscellaneous	1%	1%	3%

ASEAN = Association of Southeast Asian Nations; HS = Harmonized System; NTM = non-tariff measure.
Source: Authors' calculation based on the 2015 ASEAN-ERIA-UNCTAD Database.

Table 2.5 sheds additional light on the issue by looking at who is responsible for the issuance of NTMs. Under the PE hypothesis, one would expect trade and industry ministries to account for a substantial fraction of NTMs. By contrast, under the IE hypothesis one would expect the health and environment ministries to loom large. Measures issued by agriculture ministries could fit under both hypotheses, as agri-food products are both health sensitive and the object of strong protectionist pressures. Health and environment ministries together account for about one-third of all NTMs (34.3 percent). By contrast, trade and industry ministries account for less than 15 percent of the measures. Thus, a raw count of where measures originate from suggests more weight for the IE hypothesis.

Table 2.5: NTMs by Issuing Agency in ASEAN, 2015

Number	Ministry/agency	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Health	1868	31.3%
2	Ministry of Agriculture (including forestry, plantation, fisheries)	1865	31.2%
3	Ministry of Trade	468	7.8%
4	Other institutions (not mentioned in countries' table)	463	7.7%
5	Ministry of Industry	425	7.1%
6	Ministry of Environment, environmental agencies	178	3.0%
7	Cabinet office, State Secretary	175	2.9%
8	World Trade Organization (provided by WTO)	87	1.5%
9	Ministry of Finance	86	1.4%
10	Ministry of Energy, and related agencies on energy	64	1.1%
11	Other institutions	296	5.0%
Total NTMs		5,975	100.0%

ASEAN = Association of Southeast Asian Nations; NTM = non-tariff measure.
Note: Data on measures of Antidumping, countervailing duties and safeguards are provided by the WTO. The WTO does not issue any regulations.
Source: Authors' calculation based on the 2015 ASEAN-ERIA-UNCTAD Database.

All in all, this brief overview of NTMs in ASEAN suggests that exclusive focus on the PE hypothesis is unlikely to do justice to the variety of motivations that preside, across countries, over the issuance of NTMs.

The data in Table 2.5 also highlight one of the distinguishing features of NTMs; namely, that authority over them, unlike tariffs, is fragmented and spread over a large spectrum of government agencies. Moreover, these agencies have different mandates, and their personnel are unlikely to have much in common in terms of training or vision. Thus, the narrow, trade-centred prism through which economists look at NTMs stands in sharp contrast with the diverse constituencies that have a say in their making. This may be one of the reasons why they are still so poorly understood.

Also, the fragmentation of authority over NTMs may reproduce at the country level a problem that has been long noticed at the supra-national level. When a country adopts a trade-policy measure, NTM or other, it is likely to affect its trade partners in one way or another. Without a supra-national coordination mechanism, these so-called 'externalities' would not be taken into account in national decision-making, and the outcome would not

be collectively optimal. The WTO, its agreements, and its dispute-settlement body provide a forum and mechanism to discuss and internalize the externalities.

A somewhat similar – if less acute – coordination problem exists within countries in the area of NTMs. While all the agencies that form a government share, in principle, a stake in the pursuit of the common good, each has, in practice, a particular and possibly narrow mandate. While measures (in particular, NTMs) taken by one agency may well have implications that spill over to other areas, there is typically no forum or mechanism to discuss and resolve them. Spillovers (say, from environmental protection to competitiveness, or from liberalization to product safety) are typically ignored, or, when recognized, solved in ad-hoc fashion by bargaining between ministries, with the most powerful one winning the case. Correctly resolving the trade-offs generated by cross-area spillovers would require, instead, an institutional setup geared toward their explicit recognition and their resolution in the pursuit of the common good rather than through bargaining.

4. A simple proposal

Our brief and very preliminary overview of the state of play in NTMs in ASEAN suggests that neither the PE hypothesis nor the IE one can be ruled out with certainty. Therefore, appropriate policy guidance should take into account both types of motivations and offer a balanced policy mix with both 'disciplines' in a traditional trade sense and tools to facilitate trade-offs between conflicting objectives at the sub-national (agency) level.

The WTO SPS and TBT agreements offer rules that governments can rely on to solve certain trade-offs. They are useful, but they are not enough, because rules are never 'complete contracts' – they cannot cover all possible situations. What we propose here is to complement the rules with a standard institutional set up which, up to a certain degree of adaptation to fit national realities, could provide a common blueprint to resolve trade-offs and ensure regulatory coherence both within and between countries.

The setup is simple. We establish a National Economic Council (NEC) (the name can vary in each country) that has a direct mandate from the president or prime minister. It consists of related in-line ministers and high-level government officials with a technical secretariat. The mandate is to review and design strategic trade and investment policies

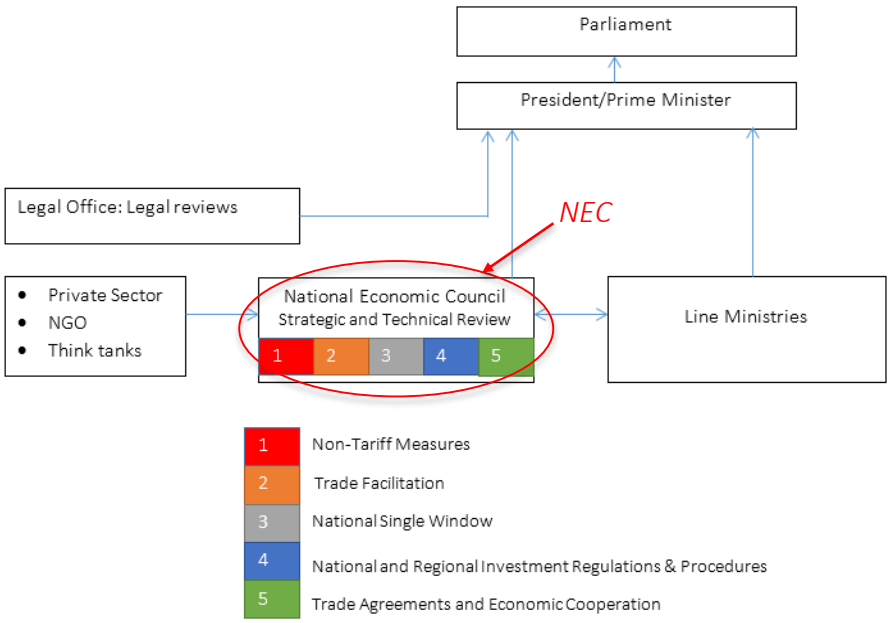
and regulations. The NEC consists of divisions of trade facilitation, NTMs, national single window, investment procedure and regulations, and free trade agreements/ economic cooperation.

The NTM division will review all existing and upcoming NTMs. The key aspect of our proposal is the NEC's technical secretariat. In order to add value, the NEC needs two things. First, to be endowed with independent research capabilities in order to identify where real problems are and recommend feasible and socially optimal solutions. For that, the secretariat must be staffed with knowledgeable economists and trade and investment lawyers capable of conducting logical, factual, and quantitative analysis and of defending it effectively, which also requires a mixture of junior and senior staffing. Second and equally important, it needs to have a dispute settlement mechanism capable of resolving disputes for the common good and not just through bargaining.[8] This may entail either a collective-decision procedure or higher-level arbitrage, or both.

The proposed setup is illustrated in Figure 2.4. The left-hand side of the figure shows the entry points into the process, which may include suggestions from private sector, non-government organizations, and other segments of civil society. It is also important that the NEC be allowed to seize cases on its own initiative, in particular in the early stages of its life where it may have low visibility and private-sector complaints may be slow to come. The upper part of the figure shows higher levels (for example, president or prime minister's office), which may be where all reviews and decisions on trade and investment policy and regulations will be agreed and set. Colour codes illustrate possible areas of NEC competence, although more can be included, in particular through a merger with the antitrust body (more on this below).

[8] There is a parallel here with the evolution of dispute-settlement at the WTO. While the first panels resolved disputes essentially through bargaining in order to avert the recourse to force, with time, the system evolved toward third-party arbitration, and ultimately to one where disputes are resolved in a way that ensures consistency, see Jackson (1997).

Figure 2.1: Proposed Institutional Setup



NGO = nongovernment organization.
Source: Prepared by the authors.

The setup illustrated in Figure 2.4 is merely a blueprint. Although an appropriate institutional setup is key, an NTM streamlining process, like any reform process, is only worth the political goodwill and commitment that is placed in it. The case of Mexico is telling in this regard. The drive for regulatory reform in Mexico came in early 1995 when the December 1994 'Tequila Crisis' underscored the need to modernize the economy. The country embarked in a top-down regulatory reform driven by a small group of technocrats with strong support from the presidency. The process was institutionalized through the creation of a regulatory-simplification agency, the *Unidad de Desregulacion Economica* (UDE), placed under the Secretariat of Trade's authority, but given, by presidential decree, a broader authority than the secretariat itself. UDE gathered credibility and clout by starting with 'low-hanging fruits' – regulatory reforms that were easy and widely seen as urgent – and then embarked on an ambitious reform agenda. UDE required all ministries not just to notify regulations, but also to justify them, leading to the outright elimination of 45 percent of all regulations (many of them useless). UDE was then transformed into a formal federal agency, Comisión Federal de Mejora Regulatoria or Federal Commission on Regulatory Improvement (COFEMER), with a staff of 60 professionals, a budget of $5

million, and an independent status with a president-appointed head. The law's objective was to ensure that new regulations would obey transparency and rationality standards. However, in spite of the reform's institutionalization, it was only as strong as the president's political backing. When elections returned a hostile parliamentary majority, partisan politics and reform fatigue in the face of disappointing growth eroded political support for further regulatory reform. In 2003, COFEMER lost a key battle against the telecommunications sector; the same year, its head was abruptly replaced, and it lost most of its clout (Cadot, 2015). Mexico's regulatory reform emphasized deregulation because of its particular legacy of over-regulation. As we made clear at the outset, the present chapter does *not* promote de-regulation as a universal fix; quite the opposite—our premise is that regulations are a basic and legitimate public demand that should be taken as a given. What Mexico's story of reform and backtracking highlights, instead, is the need to ensure that the reform process –whatever its ultimate aim— gathers clout as it matures, rather than lose steam in increasingly difficult battles.

In order for the process to be anchored and stable, it needs what was partially lacking in Mexico – outside support and commitment. The ASEAN Secretariat has a key role to play in this regard in setting up regional dynamics that encourage and fuel the NTM streamlining process simultaneously in several – if not all – member states. Support could come through common training and technical assistance, possibly with the involvement of development partners. Familiarity acquired through common training would have the added advantage of fostering the emergence of a common vision among national NEC, facilitating informal communication at the technical level between commonly-trained staff in different NEC. Technical cooperation between staff at similar levels of responsibility, and below the radar screen of the media and politicians, was the hallmark of Franco–German cooperation in the early days of European integration; it proved a powerful tool to prevent tensions. In an ASEAN context, it would facilitate regional regulatory coherence and could also contribute to convergence across overlapping blocs (for example, ASEAN and TPP) through the adoption of regulatory best practices.

Ultimately, the reform process should lead to a convergence of regulatory supervision and antitrust. Regulations do harm when they create monopoly positions. In turn, to be stable, monopoly positions often need regulatory barriers to entry. We already discussed in this chapter how NTMs affect market structure. This interdependence needs

to be recognized explicitly and 'internalized'. The best way to do this would be to have a single regulatory and antitrust supervision body (e.g. National Economic Council, NEC). This would have two key advantages. First, it would leverage economies of scale, as the staff skills needed for antitrust and regulatory analysis are broadly of the same nature – law and economics and, within economics, 'industrial organization'. Second, a joint NEC with both the private and public sectors under its supervision would be perceived as more balanced than either of its components, which would contribute to its clout.

5. Concluding remarks

We argued in this chapter that the belief, widely shared in the trade community, that NTMs can be somehow 'reduced' through trade negotiations, is doomed. Many NTMs are not just trade instruments – notwithstanding the analogy with tariffs that is implicit in their name. Regulatory systems have become increasingly risk-averse in a mediatized and safety-conscious world; not only will NTMs not be reduced – they will keep on proliferating. Because of their potential dual use (for consumer-safety and job-protection purposes) and the relatively weak disciplines to which they are subjected, their proliferation creates a systemic risk for regional and multilateral trading systems. However, finger pointing is counterproductive, as NTM reforms are held back by the perception that they would be concessions to trade partners, like tariff reductions, and should therefore be undertaken only as part of a negotiated *quid pro quo*.

What we propose, instead, is to take back NTM streamlining to the country level, with the ASEAN Secretariat providing support in various ways, e.g. through regular NTM reviews at the regional level. Regional disciplines on transparency also have a key role to play, together with momentum toward mutual recognition and, whenever feasible, harmonization. The key aspect of our proposal is its dynamic aspect: instead of rules and constraints, we propose the adoption of simple institutional setups at the country level that would be conducive to the emergence of best practices. These could be called 'dynamic disciplines'.

Practically, a possible roadmap to implement our proposal would blend regional and multilateral approaches. At the multilateral level, the WTO's Trade Facilitation Agreement mandates that each country set up a trade portal and a trade facilitation

committee. An ambitious reading of the agreement would make the trade portal an open-access repository of all NTMs, in local languages and in English. This would be a tremendous step towards transparency, and it would be politically acceptable if it were clear that posting was not the first step toward negotiated elimination. Likewise, trade facilitation committees could be used as stepping-stones towards the creation of our proposed National Economic Council, coordinating trade facilitation, non-tariff measures, national single windows, investment and trade-related regulations and procedures. Thus, the streamlining and harmonization of NTMs would make headway at all three levels—national, regional and multilateral, contributing to (paraphrasing Baldwin and Thornton, 2008 and Baldwin and Kawai, 2013) "multilateralize" Asian regionalism.

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CHAPTER 3

Classification of Non-tariff Measures in Brunei Darussalam[9]

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1. Overview of Brunei Darussalam's economy

Brunei Darussalam (hereinafter, Brunei) has one of the highest levels of income per capita in Southeast Asia with the lowest population and abundant oil and gas resources. However, in the last decade, Brunei had the lowest economic growth rate in the region due to its dependence on the oil and gas sector. The sector contributes more than 60 percent of its gross domestic product (GDP) and more than 90 percent of its exports (OECD, 2014).

Brunei's dependency on oil and gas caused the government to have a significant role, while limiting the role of the private sector. This condition is further strengthened by the combination of high wages and low productivity of the private sector that makes the private sector is uncompetitive internationally (Lawrey, 2010).

Realising this condition, on January 2008, the Brunei government issued a long-term development policy package, known as Wawasan Brunei 2035 (Vision Brunei 2035). The policy consisted of a structural development package to accelerate sustainable economic growth. The emphasis of the package is to accelerate economic growth through high productivity to achieve the target of 6 percent average annual economic growth. High economic growth was expected to come from economic diversification and an increasing role of the private sector.

In order to support the structural programme, the government promotes investment inflow in the export-oriented and labour-intensive sectors. Those sectors are agri-food, downstream oil and gas and energy-intensive industries, information and communication technology, life sciences (pharmaceutical, cosmetics, and functional health food and health supplements); light manufacturing, services such as financial services,

[9] The author would like to thank B. Realino Yudianto (Center for Inclusive and Sustainable Development, Prasetiya Mulya) for his useful assistance in collecting the regulations and Steven Leonardo (Prasetiya Mulya) for his dedicated assistance in data processing.

logistics, and tourism and activities that may be driven by technology development (Brunei Economic Development Board website).

Recently, Brunei has viewed the regional partnership as a complement of multilateral partnership. The regional trade agreements (RTAs) have increased market access and investment to support economic diversification. In 2013, merchandise trade with RTA partners consisted of 75 percent of Brunei's imports and 99.6 percent of its exports.

In 2013, the ratio of merchandise trade (exports and imports) to GDP was 104.1 percent. Mineral fuels, which include petroleum and natural gas, represented 96.5 percent of total merchandise exports. The remaining exports are manufactured goods, led by machinery and transport equipment (1.1 percent of total merchandise exports in 2013) and chemicals (0.8 percent) Brunei's merchandise exports are mainly destined for the East Asian region. Japan remains Brunei's largest export partner, followed by the Republic of Korea (WTO, 2015).

Brunei's imports were dominated by manufactured goods; the most important category was machinery and transport equipment, accounting for 36.6 percent of total imports in 2013 followed by other manufactured imports such as chemicals. The share of food in total merchandise imports increased from 12.3 percent in 2008 to 13.3 percent in 2013.

Most of Brunei's merchandise imports came from East Asia, with Malaysia accounting for the largest source of imports, 21.9 percent, and followed by Singapore at 19.1 percent in 2013. Imports from ASEAN countries accounted for 50.9 percent in 2013.

Currently, Brunei applies low tariffs on imported goods. There are import and excise duties but no value-added tax. The average applied most favoured nation (MFN) applied tariff is around 1.7 percent, with no tariffs on agriculture and 2 percent on non-agricultural products. Tariff rates range up to 30 percent, with chemicals and related products subject to the highest tariff protection.

As tariffs are low, non-tariff measures (NTMs) have become the focus in Brunei. According to a study conducted by Ando and Obashi (2010) NTMs have been implemented on some products in Brunei. All tariff lines for chemicals and related products are subject to automatic licensing measures, 70 percent of which are also subject to non-automatic licensing simultaneously. More than 95 percent of animals, plants, and food products

group are subject to technical regulations. All machineries products are subject to either quantity control or automatic licensing. Nearly 90 percent of wood and wood products are subject to a combination of automatic licensing and quantity control measures. A study conducted by Ando and Obashi (2010) uses 2008 UNCTAD classifications.

As NTM numbers and types have evolved, UNCTAD developed a new and more comprehensive NTM classification in 2012. This study uses the 2012 UNCTAD classification in classifying and analysing NTM applied in Brunei.

2. Legal comprehensiveness

Brunei applies a number of non-tariff measures (NTMs) in its international trade. These NTMs are spread across several types of legal documents issued by government agencies in Brunei. Most of these documents can be accessed through a centralised source, namely the website of the Attorney General's Chamber (www.agc.gov.bn). The website publishes all legal documents issued in Brunei, including all regulations related to international trade. In some cases, NTM regulations can also be found in other online sources, such as ministries' websites, departments' websites, and in World Trade Organization (WTO) notifications.

One hundred regulations with indications of NTMs were found during the collection and review process. However, only 58 regulations were found to contain NTMs. Most of these regulations are written in English, with only two in Malay. Most NTMs are found in rules and regulations, while a few are found in acts. The rules and regulations generally provide more detailed information of the measures and the affected products than the acts.

In order to validate legal comprehensiveness, six international conventions relating to international trade were reviewed. Four international conventions have been ratified into regulations in Brunei:

1) Montreal Protocol, ratified in the Customs (Prohibition and Restriction on Import and Export) Order, 2005
2) Basel Convention, ratified in the Hazardous Waste (Control of Export, Import and Transit) Order, 2013
3) CITES Convention, ratified in the Wild Fauna and Flora Order, 2007

4) Single Convention on Narcotic Drugs, the Convention on Psychotropic Substances; the Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances: ratified in the Misuse of Drugs Act, 1978

Two international conventions are not yet ratified, namely the Stockholm Convention and the Chemical Weapons Convention.

Table 3.1 shows the comprehensiveness of Brunei's NTMs. There are 58 NTM regulations containing NTMs, but only two that have been notified to the WTO – the Public Health (Food) Regulations and the Halal Meat Rules. A total of 29 government institutions issue NTM regulations. The total number of coded NTMs is 516, affecting 5,613 products (Harmonized System [HS] code), or 56.6 percent of the total products traded in Brunei.

Table 3.1: Comprehensiveness of Non-tariff Measures in Brunei Darussalam

Number	Comprehensiveness	Number
1	Total number of coded regulations	58
2	Total number of coded regulations reported to the WTO	2
3	Total number of coded NTMs	516
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products [a/]	5,613
	b. Share of the number of affected products to the number of total products (%) [b/]	56.6%
5	Total number of issuing institutions	29

Notes:
[a/] One product may be affected by more than one measure, but the same HS-coded product will be counted as one product, e.g., HS 840731 has three NTMs, so it is counted as 'one affected product'.
[b/] Brunei adopts the HS-10 digit at national tariff lines and it has 9,916 tariff lines. Among these 9,916 products, 5,613 products are affected by NTMs, so the share of the affected products to the number of total products is 56.6 percent.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

3. Issuing institutions

The Ministry of Health issued more than half of the NTM regulations (57.5 percent), followed by the Ministry of Industry and Primary Resources (8.6 percent), and the Department of Agriculture and Agrifood (6.6 percent) (Table 3.2). There are 168 NTMs issued jointly by more than one institution.

Table 3.2: Proportion of Non-tariff Measures by Issuing Institution (Single Institutions)

Number.	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Health	393	57.46
2	Ministry of Industry and Primary Resources	59	8.63
3	Department of Agriculture and Agrifood	45	6.58
4	Ministry of Religious Affairs	26	3.80
5	Royal Customs and Excise Department	25	3.65
6	Ministry of Finance	18	2.63
7	Department of Forestry	16	2.34
8	Authority for Info-communications Technology Industry	11	1.61
9	Ministry of Communication	10	1.46
10	Department of Land Transport	9	1.32
11	Other institutions	72	10.53
	Total	684*	100

Note: Total number of NTMs is 516, of which 168 were jointly issued by institutions.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Table 3.3: Proportion of Non-tariff Measures by Issuing Institution (Single and Joint Institutions)

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Health	354	68.6
2	Ministry of Health, Ministry of Religious Affairs, Department of Agriculture and Agrifood, Ministry of Industry and Primary Resources	23	4.5
3	Department of Agriculture and Agrifood	17	3.3
4	Department of Forestry, Ministry of Industry and Primary Resources	16	3.1
5	Authority for Info-communications Technology Industry	9	1.7
6	Fisheries Department, Ministry of Industry and Primary Resources	9	1.7
7	Ministry of Health and Royal Customs and Excise Department, Ministry of Finance	9	1.7
8	Royal Brunei Police Force	9	1.7
9	Ministry of Health, Ministry of Home Affairs	7	1.4
10	Brunei Museums Department	6	1.2
11	Other institutions	57	11
	Total	516	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

As shown in Table 3.3, out of the top 10 institutions, 3.4 percent of NTMs were jointly issued by the Ministry of Health, the Ministry of Religious Affairs, the Department

of Agriculture and Agrifood, the Ministry of Industry and Primary Resources, while 1.3 percent were jointly issued by the Ministry of Health and the Royal Customs and Excise Department, and 1.0 percent were jointly issued by the Ministry of Health and the Ministry of Home Affairs.

4. NTM classification by type

As shown in Table 3.4, the most commonly identified types of NTMs are technical barriers to trade (TBT) (Type B), sanitary and phytosanitary (SPS) measures (Type A), and price control measures (Type F). TBT measures accounted for 55.8 percent of total NTMs.

Table 3.4: Non-tariff Measure Classification by Type

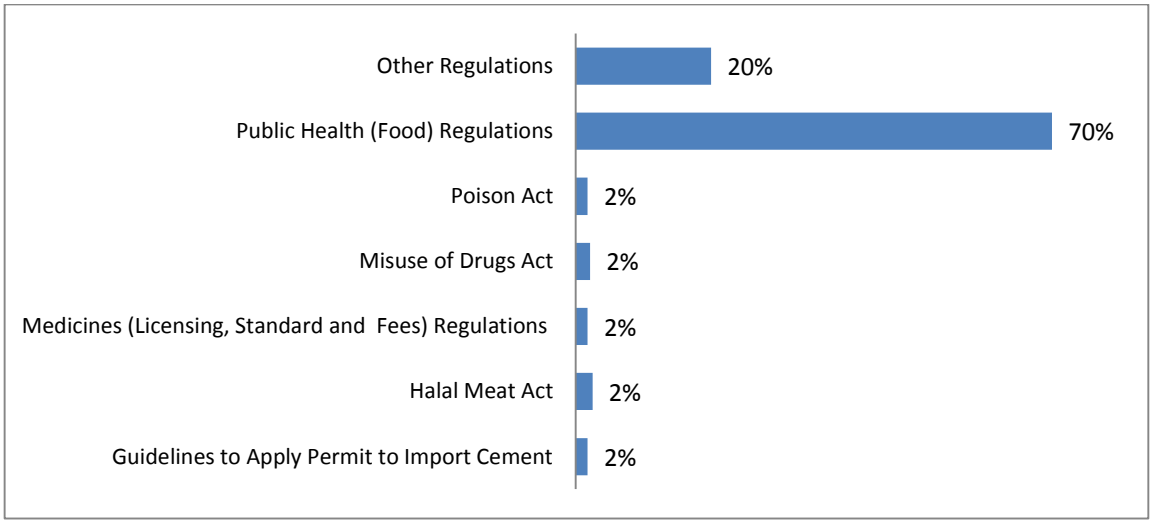
Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	161	31.2
B	Technical barriers to trade (TBT)	288	55.8
C	Pre-shipment inspection and other formalities	1	0.2
D	Contingent trade protective measures	0	0.0
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	2	0.4
F	Price control measures including additional taxes and charges	18	3.5
G	Finance measures	0	0.0
H	Measures affecting competition	0	0.0
I	Trade-related investment measures	0	0.0
J	Distribution restrictions	0	0.0
K	Restriction on post-sales services	0	0.0
L	Subsidies (excluding export subsidies under P7)	0	0.0
M	Government procurement restrictions	0	0.0
N	Intellectual property	0	0.0
O	Rules of origin	0	0.0
P	Export-related measures	46	8.9
	Total coded NTMs	516	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 3.1 shows that 70 percent of the TBT measures originated from public health (food) regulations, while regulations concerning poisonous products, drugs, medicine, cement, and halal meat each contributed around 2 percent to TBT measures. Out of 288 TBT measures, 44 percent were B7 (product quality), followed by B31 (labelling

requirements) and B6 (product identity). B7 (product quality) was mostly applied to food products.

Figure 3.1: Technical Barriers to Trade Measures by Regulation

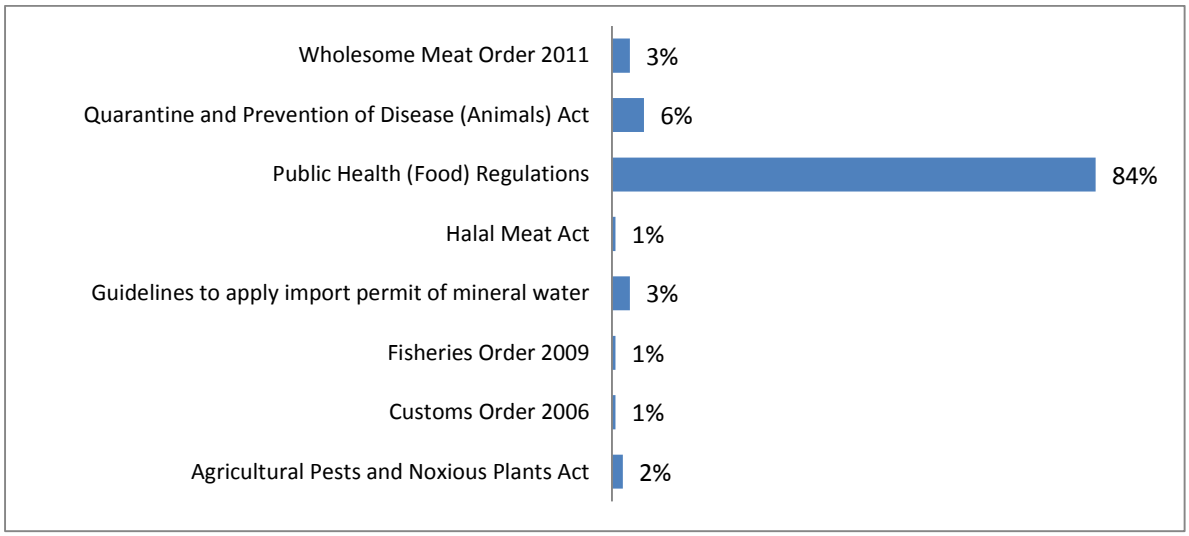


Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

SPS measures were the second-largest group of NTMs, accounting for 31.2 percent of total NTMs. As shown in Figure 3.2, 84 percent of SPS measures concerned public health (food). Other significant sources were quarantine regulations, wholesome food orders, and guidelines to apply for import permits for mineral water. The objective of most SPS measures is the protection of human health.

Out of 161 SPS NTMs, the most frequently applied NTM was A22 (restricted use of certain substances in foods and feeds), which accounted for 47 percent, followed by A31 (labelling requirements) accounted for 20 percent, A21 (tolerance limit of residues or contaminations) accounted for 6 percent, and A64 (storage and transport conditions) accounted for 6 percent.

Figure 3.2: Sanitary and Phytosanitary Measures by Regulation



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Overall, NTM Types A, B, and C (so-called technical measures) were the most commonly applied NTMs in Brunei, accounting for 87.2 percent of total NTMs. Meanwhile, non-technical measures accounted for 19.7 percent of total NTMs. The non-technical measures most applied in Brunei were Type E (non-automatic licensing, quotas, prohibitions, and quantity control measures other than for SPS or TBT reasons) and Type F (price control measures including additional taxes and charges). NTM Type F mostly affected food products, motor vehicles and trailers, and endangered species.

Meanwhile, export measures covered 8.9 percent of total NTMs. Products most affected by export measures were those regulated by international conventions, such as hazardous waste, wild flora and fauna, and arms and explosives. Export measures were also imposed on animal products, oil and mining, and products exported through government incentive schemes.

If NTM types are broken down into a more detailed code or into sub-chapters of classifications, 53 types of NTMs were applied in Brunei (Table 3.5). Among these, B7 was the most frequently applied NTM, accounting for 24.4 percent, followed by A22 (14.5 percent), and B31 (8.9 percent). Most of the B7 NTMs were applied to foodstuffs.

Table 3.5: Non-tariff Measure Classification by Detailed Type of NTM

Number	Sub-Chapter of NTM	Amount	%	Number	Sub-Chapter of NTM	Amount	%
1	A14	5	0.97	28	B6	37	7.17
2	A15	3	0.58	29	B7	126	24.42
3	A19	2	0.39	30	B81	2	0.39
4	A21	10	1.94	31	B82	4	0.78
5	A22	75	14.53	32	B83	6	1.16
6	A31	32	6.20	33	B84	8	1.55
7	A33	1	0.19	34	B85	10	1.94
8	A41	3	0.58	35	B9	2	0.39
9	A42	1	0.19	36	C3	1	0.19
10	A51	2	0.39	37	E113	1	0.19
11	A63	2	0.39	38	E321	1	0.19
12	A64	10	1.94	39	F11	1	0.19
13	A81	1	0.19	40	F19	1	0.19
14	A82	1	0.19	41	F65	6	1.16
15	A83	7	1.36	42	F69	9	1.74
16	A84	4	0.78	43	F72	1	0.19
17	A85	1	0.19	44	P11	2	0.39
18	A86	1	0.19	45	P13	17	3.29
19	B11	6	1.16	46	P14	2	0.39
20	B14	22	4.26	47	P21	1	0.19
21	B15	6	1.16	48	P5	8	1.55
22	B21	1	0.19	49	P61	6	1.16
23	B22	5	0.97	50	P62	4	0.78
24	B31	46	8.91	51	P69	4	0.78
25	B33	3	0.58	52	P7	1	0.19
26	B41	1	0.19	53	P9	1	0.19
27	B42	3	0.58	**TOTAL**		**516**	**100**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

As shown in Table 3.6, among the top 10 NTMs, nine were SPS and TBT, and only one was an export measure, which licences or governs permits required for export (P13). Out of 126 Type B7 NTMs, only one NTM did not relate to food regulations. This NTM comes from a regulation concerning the quality of imported used cars.

Table 3.6: Top 10 Non-tariff Measure Codes

Number	NTM by Type	Amount	%
1	B7	126	24.42
2	A22	75	14.53
3	B31	46	8.91
4	B6	37	7.17
5	A31	32	6.20
6	B14	22	4.26
7	P13	17	3.29
8	A21	10	1.94
9	A64	10	1.94
10	B85	10	1.94
11	Others	131	25.39

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

5. NTM classification by affected product

Furthermore, to identify the intensity of NTMs on products, this study classifies the number of NTMs applied. The results are shown in Tables 3.7 and 3.8 and Figure 3.3. Products that were most affected (by at least three NTMs) were in transportation (11.8 percent), vegetable products (11.1 percent), animals and animal products (8.9 percent), and foodstuffs (7.4 percent). Most machinery products were affected by two NTMs (28.5 percent), while plastics/rubber products were mostly affected by just one NTM.

NTMs affecting transportation products consisted of product registration, company registration, certification, documentation requirements, licensing, inspection, product quality, import licence fees, additional charges, and excise tax. The objective of the measures on transportation products is mostly to ensure public safety related to transportation.

Although the transportation products group was the most affected by three or more NTMs, on average the animals and animal-product group had the highest average number of NTMs. As shown in Figure 3.4, on average this product group was affected by 19.8 NTMs, while the transportation product group was affected by 11.8 NTMs. Other product groups that had high average NTMs were vegetable products (11.4), foodstuffs (10.2), and wood and wood products (9.2). The plastics/rubber product group had the lowest average number of NTMs, at only 1.2.

Overall, NTMs were applied intensively on affected products in Brunei. As shown in Table 3.8, 56.48 percent of affected products were affected by at least three NTMs, while

37.2 percent of affected products were affected by two NTMs, and only 6.3 percent of affected products were affected by just one NTM.

Table 3.7: Non-tariff Measure Classification by Affected Product

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animals & animal products	1	18	498
06-15	Vegetable products	0	3	623
16-24	Foodstuffs	0	25	414
25-27	Mineral products	15	112	29
28-38	Chemicals & allied industries	38	99	332
39-40	Plastics/rubber	165	0	7
41-43	Raw hides, skins, leather & furs	0	1	59
44-49	Wood & wood products	26	29	131
50-63	Textiles	30	25	106
64-67	Footwear/headgear	0	0	27
68-71	Stone/glass	26	41	17
72-83	Metals	18	38	22
84-85	Machinery/electrical	5	1,600	147
86-89	Transportation	19	39	662
90-99	Miscellaneous	9	61	96
	Total	352	2,091	3,170

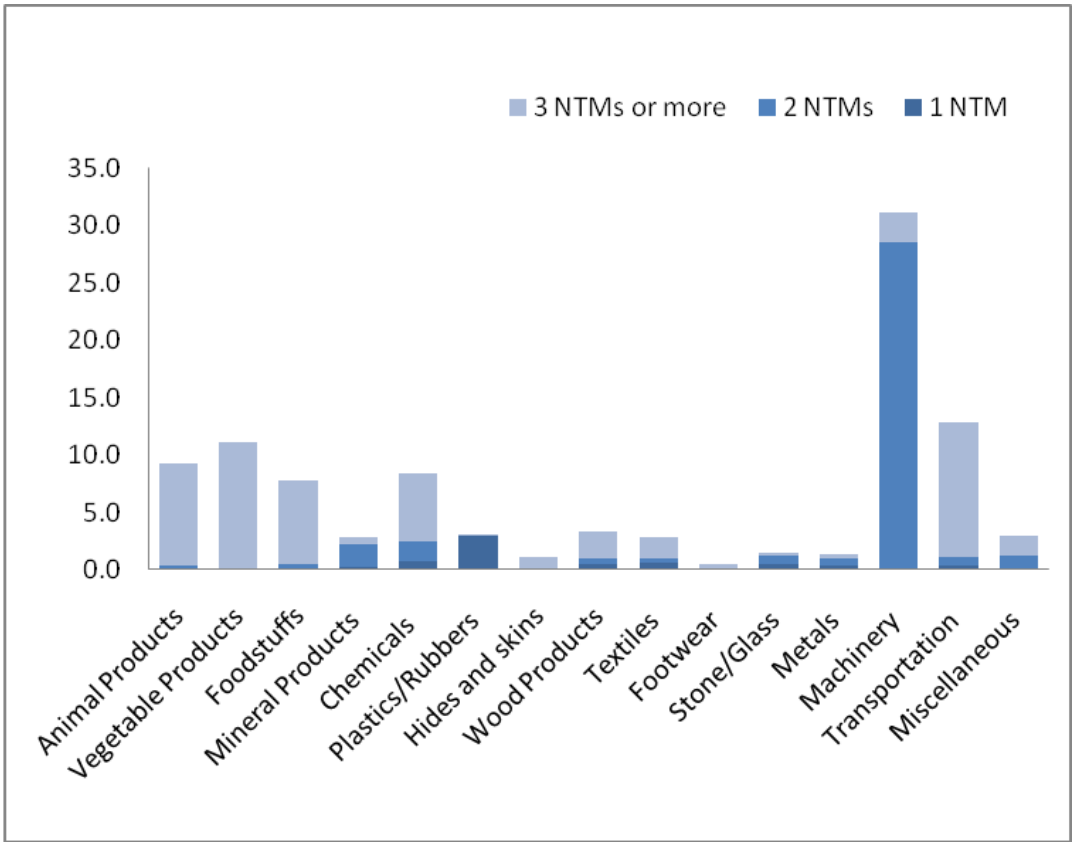
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Table 3.8: Non-tariff Measure Classification by Affected Product (%)

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animals & animal products	0.02	0.32	8.87
06-15	Vegetable products	0.00	0.05	11.10
16-24	Foodstuffs	0.00	0.45	7.38
25-27	Mineral products	0.27	2.00	0.52
28-38	Chemicals	0.68	1.76	5.91
39-40	Plastics/rubber	2.94	0.00	0.12
41-43	Hides and skins	0.00	0.02	1.05
44-49	Wood products	0.46	0.52	2.33
50-63	Textiles	0.53	0.45	1.89
64-67	Footwear	0.00	0.00	0.48
68-71	Stone/glass	0.46	0.73	0.30
72-83	Metals	0.32	0.68	0.39
84-85	Machinery	0.09	28.51	2.62
86-89	Transportation	0.34	0.69	11.79
90-99	Miscellaneous	0.16	1.09	1.71
	Total	6.27	37.25	56.48

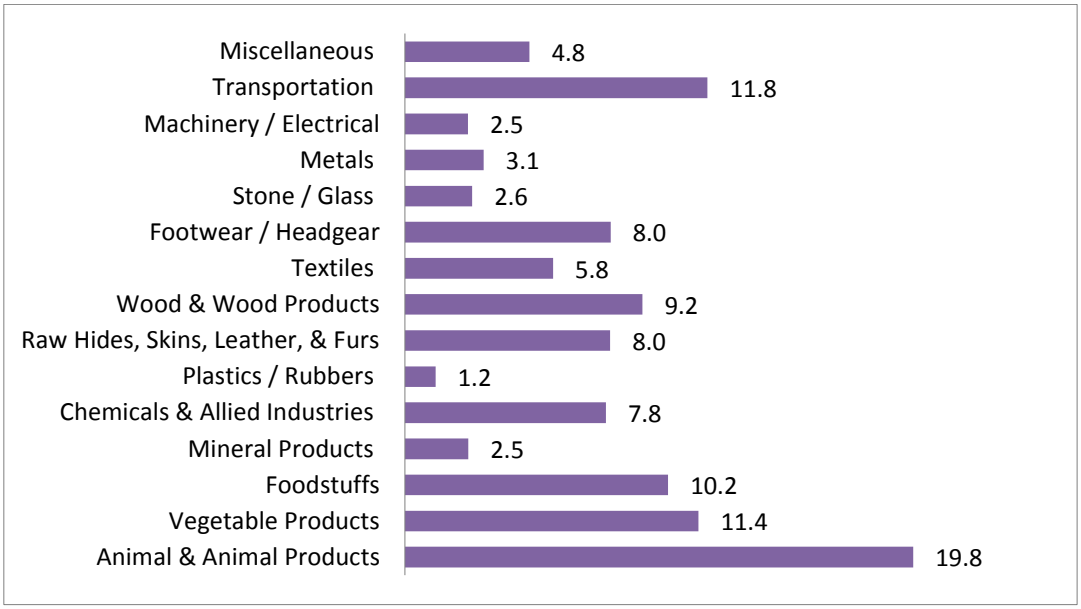
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 3.3: Non-tariff Measure Classification by Affected Product



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 3.4: Average Number of Non-tariff Measures by Product Group



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

6. Main findings

- From 58 regulations, 516 NTMs affect 5,613 products (HS codes).
- The Ministry of Health issued the most NTM regulations.
- Technical measures were the most frequently applied NTMs in Brunei, accounting for 87.2 percent of total NTMs. From these numbers, TBT measures covered 55.8 percent of total NTMs and SPS measures accounted for 31.2 percent of total NTMs.
- Product quality (B7) was the most frequent NTM. This measure mostly applies to food products.
- Export measures covered 8.9 percent of the total. The most frequently affected products by export measures were those products regulated by international conventions.
- Products that were most affected by three or more NTMs were transportation, vegetable products, animals and animal products, and foodstuffs.
- On average, the animals and animal product group was the group most frequently affected by NTMs.

7. Policy recommendations

- In order to increase NTM transparency, the government should increase the number of notifications to the WTO. Currently, only two regulations (out of 58) have been notified to the WTO.
- Further study is needed to understand whether the intensive use of NTMs on several products tends to lower or to increase trade volumes in Brunei Darussalam.

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CHAPTER 4

Classification of Non-tariff Measures in Cambodia

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1. Overview of Cambodia

Cambodia has achieved national reconciliation and political stability after the first democratic election in 1993 resulted in forming a new coalition government. After overcoming hardship including a protracted civil war, political strife, genocide, and international isolation, the country has transformed from a centrally planned economy to a free market economy with the main tasks to implement macroeconomic and structural reforms and to alleviate poverty. As a result, Cambodia has achieved significant success in stabilizing the macroeconomic foundation with rapid economic growth and low inflation.

In line with peace, political stability, and social order, Cambodia can maintain a stable economic growth with an average of about 7 percent per year as planned in its National Strategic Development Plan. The highest record of growth was 12.3 percent in 2005 and the lowest record of growth was 0.1 percent in 2009 due to the global financial crisis.

It is estimated in 2015 that the growth rate reached 6.9 percent, the gross domestic product (GDP) reached $18,502 million, and the per capita GDP reached $1,228. The sectoral growth is 1 percent for agriculture, 8.7 percent for industry, and 9.0 percent for services (Ministry of Economy and Finance). The leading sectors in Cambodia are garment, agriculture, tourism, and construction. The poverty rate has been reduced about 1 percent per year.

Currently, trade is an important instrument for economic development and poverty reduction in Cambodia. In order to implement the World Trade Organization (WTO) and the Association of Southeast Asian Nations (ASEAN) trade agreements, Cambodia has conducted many reforms, especially legal and institutional reforms and trade facilitation. In reforming its tariff structure, Cambodia had reduced the number of tariff bands from 12 to 4 before joining the WTO, and the highest tariff rates of 40 percent, 50 percent, 90 percent, and 120 percent were abolished. At present, the tariff comprises four tiers: 0 percent, 7 percent, 15 percent, and 35 percent.

While the trade balance of Cambodia is in deficit, both exports and imports have been expanding as a result of economic growth. As of 31 July 2015, the value of exports was about $5.35 billion, which is an increase of more than 20.5 percent compared to the same period of 2014, while the value of imports reached a record of $6.70 billion marking an increase of 17.2 percent compared to 2014 in the same period.

The major destination countries of exports are the United States, Hong Kong, China, the European Union, Canada, and Viet Nam. The major importing countries are Hong Kong, China, Taiwan, Thailand, and Viet Nam. The primary export product is apparel, which accounted for more than 80 percent of the total exports. The major import products are textiles, petroleum products, and vehicles. Cambodia is significantly depending on the imports for industrial input products and daily commodities. Certainly, with the integration of ASEAN and the liberalization of international trade, non-tariff measures (NTMs) are an important component in a country's trade activity.

2. Hierarchy of laws and regulations

Cambodia’s Constitutional Assembly adopted the Constitution on 21 September 1993. It is the supreme law of the Kingdom of Cambodia and organizes Cambodia’s government and institutions. All laws and regulations derive from the Constitution’s provisions and must conform to it (Open Development Cambodia website). The Constitution addresses questions of sovereignty, the role and status of the king, the fundamental rights of the Khmer citizens, the economy, education, culture, and social affairs, the functioning of the National Assembly, the Senate, congress and the government, and the functioning of the judiciary, the Constitutional Council, and the administration.

Laws and regulations are classified in order of importance. There are numerous legal norms adopted by the legislative and executive powers: the Constitution, laws, decrees, decisions, among others. There is a strict hierarchy between them, so that each norm of a lower level must conform to those of a higher value.

- Constitution: The supreme law of the Kingdom of Cambodia.
- International treaties: The king signs and ratifies international treaties and conventions after their approval by the National Assembly and the Senate. After such ratification, international treaties and conventions become laws and may be used as the basis for judicial decisions (Article 26 of the Constitution).
- Chbab/law: Laws adopted by the National Assembly.
- Kram and kret (royal kram and royal decree): Decrees issued under the name of the king in execution of his constitutional powers.
- Anukret/sub-decrees are signed by the prime minister after adoption at a cabinet meeting. In case the cabinet meeting has not adopted the sub-decree, countersignature by the minister(s) in charge is required. The prime minister can use this in execution of his own regulatory powers.
- Prakas/proclamations are issued by members of the government in execution of their own regulatory powers.
- Sechdei samrech/decision: Individual decision(s) made by the prime minister, minister, or governor (prakas-deika), which are made in execution of his own regulatory powers.
- Sarachor/circular: Issued by the prime minister as the head of government, and by a minister as an official of the relevant ministry either to explain or clarify legal regulatory measures or to provide instructions.
- Deka/provincial ordinance: Orders issued by a governor within the territorial limits of his province.

3. Approach to obtain legal comprehensiveness

To analyse NTMs in Cambodia, 100 percent legal comprehensiveness is of prime importance. Thus we obtain comprehensive data as well as detailed and complete analysis. To achieve 100 percent legal comprehensiveness, we took several approaches in collecting regulations.

First, we needed to find out official sources of Cambodia, for example searching for regulations in each of the issuing institution (ministry).

Second, through Cambodia's National Trade Repository website we obtained the laws, anukret, and prakas relating to trade. As a member state of ASEAN, Cambodia is committed to the development of a National Trade Repository, which is integrated with the ASEAN Trade Repository (atr.asean.org). The National Trade Repository website (http://cambodiantr.gov.kh) is the official source for all regulatory information relevant to traders who wish to import goods into Cambodia or export to other countries.

Third, we also checked the WTO notifications to complete the comprehensiveness of data. In fact, since 2010, Cambodia only notified three regulations relating to food standards and labelling.

The comprehensiveness of Cambodia's NTMs is shown in Table 4.1. There are 52 regulations containing NTMs, but only three that have been notified to the WTO: the Law on Bio-Safety & Protected Areas, Anukret No. 42 on Industrial Standards of Cambodia, and the Law on the Management of Quality and Safety of Products and Service. The total number of coded NTMs is 243, affecting 9,558 products (Harmonized System [HS] code), or 100 percent of the total products traded in Cambodia.

Table 4.1: Comprehensiveness of Non-tariff Measures in Cambodia

Number	Comprehensiveness	Number
1	Total number of coded regulations	52
2	Total number of coded regulations reported to the WTO	3
3	Total number of coded NTMs	243
4	Total affected products (HS lines, national tariff lines)	
	Total number of affected products [a/.]	9,558
	Share of the number of affected products to the number of total products (%)[b/.]	100%
5	Total number of issuing institutions	14

Notes:
[a/.] One product may be affected by more than one measure, but the same HS-coded product will be counted as one product, e.g., HS 840731 has three NTMs, so it is it will be counted as one affected product.
[b/.] Cambodia adopts the HS-8 digit code at national tariff lines and it has 9,558 tariff lines. All 9,558 products are affected by NTMs, so the share of the affected products to the number of total products is 100 percent.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

4. Issuing institutions

As shown in Table 4.2, 49 percent of the NTM regulations were issued by the Ministry of Agriculture, Forestry and Fishery, followed by the Ministry of Health (13 percent), and the Ministry of Industry, Mines and Energy (10 percent). There are 114 NTMs issued jointly by more than one institution. Table 4.3 shows the NTM regulations issued by single and joint institutions.

Table 4.2: Proportion of Non-tariff Measures by Issuing Institution (Single Institution)

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Agriculture, Forestry and Fishery	174	49
2	Ministry of Health	46	13
3	Ministry of Industry, Mines and Energy	34	10
4	Ministry of Economic and Finance	23	6
5	Ministry of Industry and Handicraft	21	6
6	Ministry of Interior	12	3
7	Ministry of Commerce	11	3
8	Ministry of Environment	11	3
9	National Steering Committee for Biosafety	7	2
10	National Bank of Cambodia	5	1
11	Other institutions	13	4
	Total	357*	100

Note: * There are 114 NTMs issued by joint institutions.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Table 4.3: Proportion of Non-tariff Measures by Issuing Institution (Single and Joint Institution)

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Agriculture, Forestry and Fisheries	74	30
2	Ministry of Industry, Mines and Energy	34	14
3	Ministry of Health	29	12
4	Ministry of Industry and Handicraft	21	9
5	Ministry of Health, Ministry of Agriculture, Forestry, Hunting and Fishing,	17	7
6	Ministry of Economy and Finance	11	5
7	Ministry of Agriculture, Forestry and Fishery, Ministry of Economic and Finance	9	4
8	Ministry of Commerce	8	3
9	Ministry of Interior	8	3
10	National Steering Committee for Biosafety, Ministry of Environment	7	3
11	Other institutions	25	10
	Total	243	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

5. Non-tariff measure classification by type

The most commonly identified type of NTMs are technical barriers to trade (TBT) (Type B), export-related measures (Type P), and sanitary and phytosanitary (SPS) measures (Type A) (Table 4.4). TBT measures accounted for 49.8 percent of total NTMs.

Figure 4.1 show that 12 percent of the TBT measures originated from Anukret No.69 on the Standards and Management of Agricultural Materials Regulations, 9 percent originated from the Law on Management of Pesticides and Fertilizer 2012, and 6 percent originated from Anukret No. 48 on Formalities and Conditions for Strong Acid Control. Meanwhile, regulations concerning chemical products, forestry, and medicine each contributed around 5 percent to TBT measures. Out of 121 TBT measures, 25 percent were B15, followed by B31 (15 percent).

Table 4.4: Non-tariff Measure Classification by Type

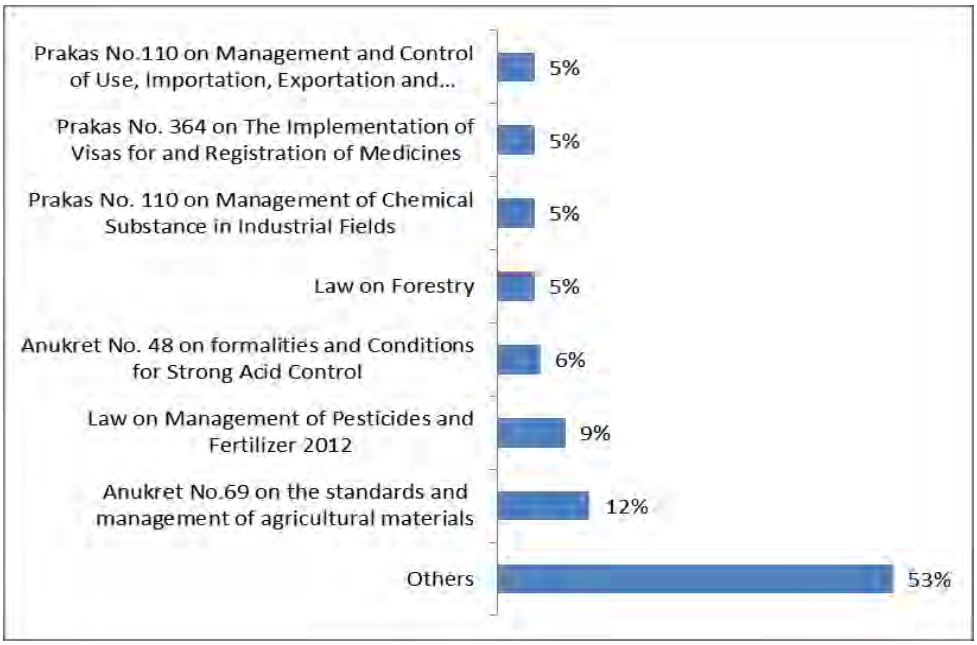
Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	36	14.8
B	Technical barriers to trade (TBT)	121	49.8
C	Pre-shipment inspection and other formalities	1	0.4
D	Contingent trade protective measures	0	0.0
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	3	1.2
F	Price control measures including additional taxes and charges	12	4.9
G	Finance measures	0	0.0
H	Measures affecting competition	0	0.0
I	Trade-related investment measures	0	0.0
J	Distribution restrictions	0	0.0
K	Restriction on post-sales services	0	0.0
L	Subsidies (excluding export subsidies under P7)	0	0.0
M	Government procurement restrictions	0	0.0
N	Intellectual property	0	0.0
O	Rules of origin	0	0.0
P	Export-related measures	70	28.8
	Total coded NTMs	243	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

SPS measures were the third largest group of NTMs, accounting for 14.8 percent of total NTMs. As shown in Figure 4.2, around 45 percent of SPS measures were concerned with sanitation of animals and animal products. Those NTMs originated from three regulations: Anukret No. 16 on Sanitary Inspection of Animals and Animal Products, Prakas No. 178 on Procedure of Animal Sanitation Control and Animal Origin Products, and Anukret No. 014 on the Inspection of Animal Sanitary and Animal Originated Products. Other significant sources were regulations on vinegar, chilli sauce, and phytosanitary inspection.

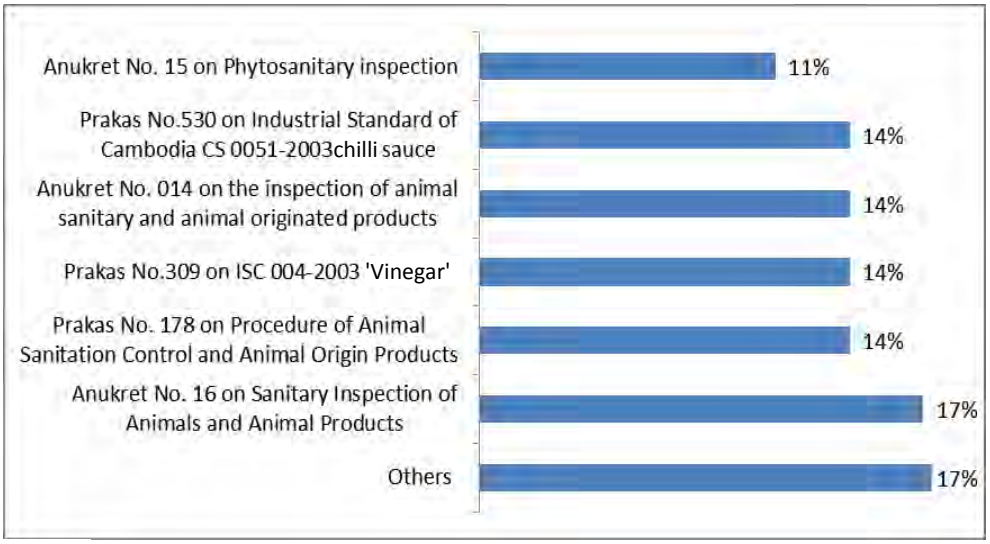
Out of 36 SPS NTMs, the most frequently applied NTM was A83 (certification requirement), which accounted for 17 percent, followed by A31 (11 percent), A82 (11 percent) and A84 (11 percent).

Figure 4.1: Technical Barriers to Trade Measures by Regulation



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 4.2: Sanitary and Phytosanitary Measures by Regulation



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Overall, NTM Types A, B, and C (so-called technical measures) were the most commonly applied NTMs in Cambodia, accounting for 65 percent of total NTMs. Non-technical measures accounted for 6.2 percent of total NTMs. The non-technical measures most applied in Cambodia were Type F (price control measures including additional taxes and charges) accounting for 4.90 percent of total NTMs. Even though Type E (non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS

or TBT reasons) only accounted 1.2 percent of total NTM, this type of NTM affected 31.3 percent of total products.

Meanwhile, export measures is the second largest type of NTM, covering 28.8 percent of total NTMs and 31.3 percent of total affected products. Export measures are imposed on all exported goods in Cambodia.

Based on the sub-chapter classification, 49 types of NTMs were applied in Cambodia (Table 4.5). Among these, B14 (authorization requirement for TBT reasons) was the most frequently applied NTM in Cambodia, accounting for 12 percent, followed by P13 (8 percent) and B31 (7 percent).

Table 4.5: NTM Classification by Sub-Chapter

Number	NTM Type	Number of NTMs	%	Number	NTM Type	Number of NTMs	%
1	A14	3	1	26	B82	8	3
2	A15	1	0	27	B83	8	3
3	A19	1	0	28	B84	8	3
4	A22	2	1	29	B85	7	3
5	A31	4	2	30	B853	2	1
6	A32	2	1	31	C3	1	0
7	A33	3	1	32	E111	1	0
8	A42	1	0	33	E23	1	0
9	A64	1	0	34	E231	1	0
10	A82	4	2	35	F6	1	0
11	A83	6	2	36	F61	4	2
12	A84	4	2	37	F65	3	1
13	A85	1	0	38	F69	3	1
14	A851	1	0	39	F71	1	0
15	A86	2	1	40	P11	2	1
16	B11	3	1	41	P12	1	0
17	B14	30	12	42	P13	20	8
18	B15	6	2	43	P14	9	4
19	B22	2	1	44	P5	10	4
20	B31	18	7	45	P61	10	4
21	B32	6	2	46	P62	8	3
22	B33	6	2	47	P69	8	3
23	B42	4	2	48	P7	1	0
24	B7	6	2	49	P9	1	0
25	B81	7	3	Total		**243**	**100**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

As shown in Table 4.6, among the top 10 NTMs, five were TBT and another five were export-related measures.

Table 4.6: Top 10 Non-tariff Measure Codes

Number	NTM Type	Number of NTMs	%
1	B14	30	12
2	P13	20	8
3	B31	18	7
4	P5	10	4
5	P61	10	4
6	P14	9	4
7	B82	8	3
8	B83	8	3
9	B84	8	3
10	P62	8	3
	Others	114	47

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

6. Non-tariff measure classification by affected product

Furthermore, to identify the intensity of NTMs on products, we classified the number of NTMs applied. The results are shown in Tables 4.7 and 4.8 and Figure 4.3. From those tables and figure we found that all products traded in Cambodia were affected by at least three NTMs.

The groups of products mostly affected by NTMs are machinery (21.6 percent), chemicals (12.1 percent), textiles (11.3 percent) and metals (9.5 percent). More than half of NTMs (54.5 percent) were imposed on those products groups. Textile products (apparel) are the primary export product of Cambodia.

Meanwhile, NTMs imposed on vegetable and animal products and foodstuff is below 7 percent, 6.6 percent imposed on vegetable products, 5.5 percent imposed on animal products, and 4.6 percent imposed on foodstuff. Most NTMs imposed on those products are SPS, TBT, and export-related measures.

Table 4.7: Non-tariff Measure Classification by Affected Product

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animal & animal products	0	0	521
06-15	Vegetable products	0	0	630
16-24	Foodstuffs	0	0	443
25-27	Mineral products	0	0	204
28-38	Chemicals & allied industries	0	0	1,157
39-40	Plastics/rubbers	0	0	480
41-43	Raw hides, skins, leather, & furs	0	0	100
44-49	Wood & wood products	0	0	426
50-63	Textiles	0	0	1,079
64-67	Footwear/headgear	0	0	74
68-71	Stone/glass	0	0	296
72-83	Metals	0	0	909
84-85	Machinery/electrical	0	0	2,067
86-89	Transportation	0	0	565
90-99	Miscellaneous	0	0	607
	Total	0	0	9,558

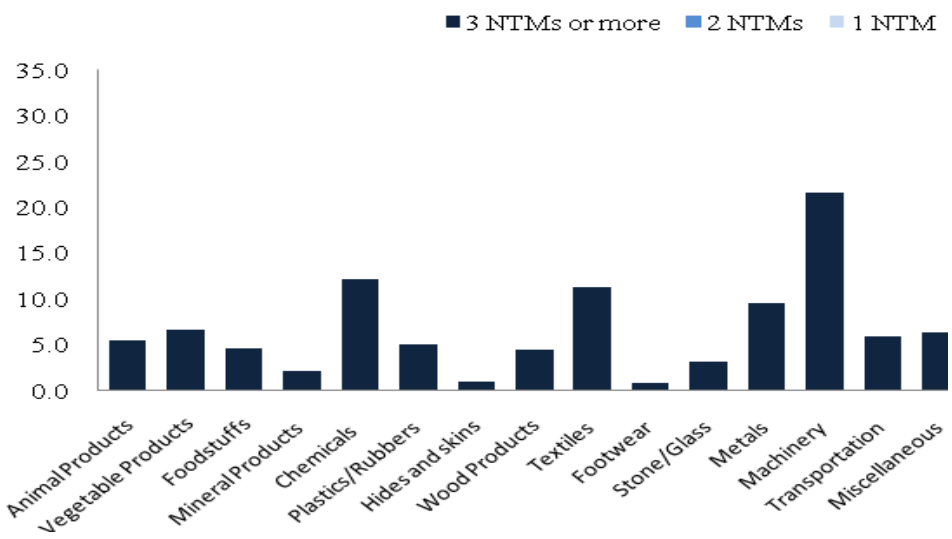
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Table 4.8: Non-tariff Measure Classification by Affected Product (%)

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animal products	0.0	0.0	5.5
06-15	Vegetable products	0.0	0.0	6.6
16-24	Foodstuffs	0.0	0.0	4.6
25-27	Mineral products	0.0	0.0	2.1
28-38	Chemicals	0.0	0.0	12.1
39-40	Plastics/rubbers	0.0	0.0	5.0
41-43	Hides and skins	0.0	0.0	1.0
44-49	Wood products	0.0	0.0	4.5
50-63	Textiles	0.0	0.0	11.3
64-67	Footwear	0.0	0.0	0.8
68-71	Stone/glass	0.0	0.0	3.1
72-83	Metals	0.0	0.0	9.5
84-85	Machinery	0.0	0.0	21.6
86-89	Transportation	0.0	0.0	5.9
90-99	Miscellaneous	0.0	0.0	6.4
	Total	0.0	0.0	100.0

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 4.3: Non-tariff Measure Classification by Affected Product



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

7. Main findings

- From 52 regulations, 243 NTMs affect 9,558 products (HS codes). This is 100 percent of the total products traded in Cambodia.
- Most NTM regulations are issued by the Ministry of Agriculture, Forestry and Fishery.
- Technical measures are the most frequently applied NTMs in Cambodia, accounting for 65 percent of total NTMs. From these numbers, TBT measures accounted for 49.8 percent of total NTMs.
- Authorization requirement for TBT reasons (B14) is the most frequent NTM.
- Export-related measures covered 28.8 percent of total NTMs and affected all product traded in Cambodia.
- Products that were most affected by three or more NTMs were machinery (21.6 percent), chemicals (12.1 percent), textiles (11.3 percent), and metals (9.5 percent).

8. Policy recommendations

- The NTM database in the Cambodia Trade Repository should be reviewed and updated every year. There are many regulations in English that are not updated. All legal documents including laws, anukrets, and prakas should be translated into English by

relevant ministries and establishments.

- Official websites of all government ministries and establishments are only in the Khmer language and are often outdated. The ministry whose published regulation is related to NTMs should update the website regularly and add English pages.
- In the process of making laws or regulations related to NTMs, representatives from relevant stakeholders, especially the NTMs National Committee and the relevant private sector, should be invited to participate and provide input.
- Capacity building should be supported for government officials at the secretariat of the NTMs National Committee.
- Awareness of NTMs and changes in laws and regulations should be disseminated through press releases and announcements in official websites of relevant ministries.
- Relevant agencies should regularly monitor regulations that might affect NTM changes while some regulations may be amended or nullified the old NTMs.

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CHAPTER 5

Indonesia's Non-tariff Measures: An Overview[10]

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1. Background

The reduction in tariff rates as a result of multilateral trade negotiations has encouraged the use of non-tariff measures (NTMs) to control the flow of international trade, including in Indonesia. In some countries, mostly in developed countries, the increasing number of reasons for using NTMs reflects the move away from a focus on the production side of the equation towards the defence of consumer and societal interests (WTO, 2012).

In spite of their growing importance in regulating trade, the exact impact of NTMs on trade flows is not well understood, and the paucity of data on NTMs is possibly the major constraint to undertaking a qualitative analysis of their impact (UNCTAD, 2013). Unlike tariffs, information on NTMs is not merely numbers; the relevant information is often hidden in legal and regulatory documents. Therefore, collecting data on NTMs is a matter of collecting information hidden in those regulations.

The difficulty of collecting data on NTMs is also due to the fact that these documents are generally not centralised but often reside in different regulatory agencies. For example, Indonesia's LARTAS database reveals that 13 different government agencies are tasked to issue regulations on import permits. Although the Ministry of Trade (MoT) is responsible for issuing most of these, it accounted for only 58 percent on average of the total NTMs issued between 2009 and 2014.[11] Meanwhile, other agencies, such as Quarantine and the Badan Pengawas Obat dan Makanan (BPOM or the National Drug and Food Control Agency), were responsible on average for 18 percent and 17 percent of NTMs,

[10]The author is grateful to Indah Rahayu and Zamroni Salim. Special thanks are also given to Ayu Sinta Saputri from the Ministry of Trade of Indonesia, Lili Yan Ing from the Economic Research Institute for ASEAN and East Asia (ERIA), and the UNCTAD team for their comments during the data compilation. Project funding from ERIA is gratefully acknowledged.

[11] On average, the total number of NTMs in the 10-digit Harmonized System (HS) code is 9,289.

respectively. Together, the MoT, the BPOM, and Quarantine cover 93 percent of total Indonesian import NTMs. Other ministries are also active in issuing NTMs, such as the Ministry of Health and Ministry of Agriculture but in limited numbers. There is an urgent need to develop a better understanding and transparency of existing NTMs.

Nicita and Gourdon (2013) mentioned that efforts to collect NTM data started in the late 1990s when the United Nations Conference on Trade and Development (UNCTAD) started to collect and categorise NTM data, and this is available in the Trade Analysis Information System (TRAINS) database accessible via the World Integrated Trade Solution (WITS). However, the data have not been regularly updated in the last 10 years. The new effort on NTM data collection has started through a joint collaboration between UNCTAD and the World Bank. As of 2011, this joint effort has produced an updated classification on NTMs as well as detailed new data for about 30 countries. However, this effort is still far from the ideal data coverage required to undertake a comparable qualitative analysis on the impact of NTMs among the regions.

The Association of Southeast Asian Nations (ASEAN) member states have initiated collecting data on NTMs, but due to technical problems, the data is not constantly updated. The latest NTM data available from the ASEAN secretariat were those reported by members in 2009. Moreover, these data are not in line with UNCTAD's new NTM database classification, instead they are classified based on the old system. The purpose of this chapter is to identify and collect NTMs in Indonesia, by drawing information from official sources and using the UNCTAD's NTM classification and methodology guidelines.

This chapter reports the result of NTM data collection for Indonesia as part of the ERIA–UNCTAD data collection on ASEAN NTMs using the MAST classification. It focuses mainly on important findings on the data compilation of Indonesia's NTMs. Section 2 discusses the government agencies issuing NTM-related regulations, followed by a discussion on Indonesian tariff lines and tariff lines covered by NTMs in Section 3. Sections 4 and 5 discuss the type of NTMs imposed by the government – the Indonesian multiple NTMs. Section 6 presents policy recommendations.

Table 5.1 presents the comprehensiveness of Indonesian NTM data collection. Comprehensiveness has become critical when collecting NTM data. Comprehensiveness should cover not only the coded NTMs, but also most importantly the comprehensiveness of NTM-related regulations. This is due to the fact that NTM measures are sometimes hidden in the legal and regulatory NTM-related documents. Therefore, it is important to ensure that 100 percent of the legal and regulatory NTM-related documents are collected.

For Indonesia, NTM information has been collected from 199 NTM-related regulations. The regulations are compiled from 14 different government agencies with the total of 638 coded NTMs. As presented in Table 5.1, those 638 coded NTMs have affected 6,466 Harmonized System (HS) lines at national tariff lines. This number is equivalent to 65 percent of the total Indonesian tariff lines.

Table 5.1: Comprehensiveness of Indonesian Non-tariff Measures

Number	Comprehensiveness	Number
1	Total NTM-related regulations	199
2	Total NTMs reported to the WTO	296
3	Total number of coded NTMs	638
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products	6,466
	b. Share of the number of affected products to the number of total products (%)	64.58 %
5	Total issuing institutions	14

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2. Government agencies issuing NTMs

A total of 199 NTM-related regulations were identified with 638 coded NTMs. These 199 regulations are distributed among 14 different agencies[12] involved in issuing NTMs (Table 5.2). This implies that the Indonesian legal framework on NTMs is decentralised and, therefore, compiling all the NTM-related regulations is a challenge. Of these 14 government agencies, the Ministry of Trade is responsible for issuing the most, almost 40 percent,[13] of the total 199 NTM-related regulations. Meanwhile, the Ministry

[12]Table 5.1 presents 17 regulatory agencies instead of 14 agencies because it includes (1) the WTO source (item 17), (2) the Ministry of Industry and Trade (item 5), which is basically the MoT before it was merged with the Ministry of Industry before 2005, and (3) the MoT and Ministry of Marine and Fishery (MoMF), which represents a regulation issued jointly by the MoT and MoMF (item 11).
[13]This consists of 34.1 percent by the MoT and 5.5 percent by the Ministry of Industry and Trade.

such as the Ministry of Agriculture at 9 percent, and the Ministry of Energy and Mineral Resources at 3.5 percent.

Table 5.2: NTM-related Regulations by Regulatory Agency

Number	Regulatory Agency	Number of Identified Regulations	%
1	Ministry of Trade	68	34.17
2	Ministry of Industry	60	30.15
3	Ministry of Agriculture	18	9.05
4	Ministry of Marine and Fisheries	14	7.04
5	Ministry of Industry and Trade	11	5.53
6	Ministry of Energy and Mineral Resources	7	3.52
7	Ministry of Finance	6	3.02
8	Ministry of Health	4	2.01
9	National Agency of Drug and Food Control	2	1.01
10	State Secretariat	2	1.01
11	Ministry of Trade and Ministry of Marine and Fisheries	1	0.50
12	Ministry of Environment and Forestry	1	0.50
13	The Indonesian National Police	1	0.50
14	Ministry of Communication and Information	1	0.50
15	Ministry of Environment	1	0.50
16	Ministry of Transportation	1	0.50
17	World Trade Organization (the information is provided by the WTO)*	1	0.50
	Total	199	100.00

Note: *) Data on measures of Antidumping, counter failing duties and safeguards are provided by the WTO. The WTO does not issue any regulations.
Sources: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Table 5.3: Number of Non-tariff Measures by Issuing Institution

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Trade	186	29.2
2	Ministry of Industry	139	21.8
3	Ministry of Agriculture	92	14.4
4	Ministry of Marine and Fisheries	70	11.0
5	World Trade Organization (the information is provided by the WTO)*	44	6.9
6	Ministry of Industry and Trade	30	4.7
7	Ministry of Energy and Mineral Resources	17	2.7
8	Ministry of Health	23	3.6
9	National Agency of Drug and Food Control	10	1.6
10	State Secretariat	7	1.1
11	Others	20	3.1
	TOTAL	638	100

Note: *) Data on measures of Antidumping, counter failing duties and safeguards are provided by the WTO. The WTO does not issue any regulations.
Source: Author's calculations.

On the number of NTMs, Table 5.3 shows that the Ministry of Trade is responsible for the most, at 29.2 percent, since the ministry has the responsibility to protect consumers and implement trade safeguards, and thus is tasked to manage import licences and trade regulations to carry out these objectives. The Ministry of Industry ranks second, covering almost 22 percent of total NTMs. The Ministry of Agriculture is third, covering 14.4 percent of the total 638 NTMs.

3. Tariff lines covered by non-tariff measures

Table 5.4 presents tariff lines subject to NTMs by product groups. Table 5.4 reveals that 6,466 tariff lines are affected by NTMs in Indonesia. This implies that of the total 10,013 national tariff lines in Indonesia, 57 percent are affected by NTMs. This is similar to Cadot et al. (2015) who found that the incidence of NTMs is widespread around the world. Except in Argentina, Latin American countries are moderate users of NTMs, and so are Cambodia and Indonesia – two ASEAN countries. In contrast, a number of African countries are heavy users of NTMs, on par with the European Union.

According to the Indonesian tariff line database, machinery and mechanical appliances, textiles and clothing, and chemicals are product groups with many tariff lines.

According to the Indonesian tariff line database, machinery and mechanical appliances, textiles and clothing, and chemicals are product groups with many tariff lines. Of the product groups where tariff lines are covered by NTMs, animal and animal products have the most, followed by foodstuffs, and textile and textile products. Almost 100 percent of tariff lines in animal and animal products is subject to NTMs. Foodstuffs and textiles products are another product group with the most NTMs. Out of 453 tariff lines, 99 percent of foodstuffs products are covered by NTMs, while 99 percent of tariff lines textiles products, out of 1167 tariff lines, is subject to NTMs.

However, important items are noted in Table 5.4. The number of tariff lines covered by NTMs is not the total NTMs because several tariff lines have more than one NTM. Summing up the number of NTMs across products, the data reveal a total of 36,609 NTMs in Indonesia. Textile and textile products contribute the most at 18 percent, followed by Machinery products at 14 percent, and Chemical and Allied industry at 12 percent.

Table 5.4: Number of Tariff Lines subject to Multiple NTMs, by Product Group

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animal & Animal Products	11	9	551
06-15	Vegetable Products	74	12	449
16-24	Foodstuffs	47	2	399
25-27	Mineral Products	46	34	110
28-38	Chemicals & Allied Industries	46	200	510
39-40	Plastics/Rubbers	22	15	101
41-43	Raw Hides, Skins, Leather, & Furs	37	25	28
44-49	Wood & Wood Products	19	17	348
50-63	Textiles	2	194	958
64-67	Footwear/Headgear	1	6	33
68-71	Stone/Glass	72	20	70
72-83	Metals	17	15	370
84-85	Machinery/Electrical	98	286	491
86-89	Transportation	118	84	268
90-99	Miscellaneous	40	49	162
	Total	650	968	4,848

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Table 5.5: Percentage of Tariff Lines subject to Multiple NTMs, by Product Group

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animal & Animal Products	0%	0%	9%
06-15	Vegetable Products	1%	0%	7%
16-24	Foodstuffs	1%	0%	6%
25-27	Mineral Products	1%	1%	2%
28-38	Chemicals & Allied Industries	1%	3%	8%
39-40	Plastics/Rubbers	0%	0%	2%
41-43	Raw Hides, Skins, Leather, & Furs	1%	0%	0%
44-49	Wood & Wood Products	0%	0%	5%
50-63	Textiles	0%	3%	15%
64-67	Footwear/Headgear	0%	0%	1%
68-71	Stone/Glass	1%	0%	1%
72-83	Metals	0%	0%	6%
84-85	Machinery/Electrical	2%	4%	8%
86-89	Transportation	2%	1%	4%
90-99	Miscellaneous	1%	1%	3%
	Total	10%	15%	75%

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

4. Types of non-tariff measures imposed by Indonesia

Table 5.6 presents the type of NTMs imposed in Indonesia. The table presents 638 occurrences of NTMs in Indonesia. Of this number, import NTMs account for 88.4 percent, while export NTMs cover 11.6 percent of the total identified NTMs. Indonesia's import NTMs are mostly on technical measures, mainly referring to technical regulations and procedures for assessing conformity with technical regulations and standards, including measures covered by the Sanitary and Phytosanitary (SPS) Measures Agreement (A), technical barriers to trade (TBT) (B), and pre-shipment inspection and other formalities (C). Technical measures contribute to almost 89 percent of import NTMs, or 79 percent of total NTMs, leaving only 11 percent for non-technical measures.

Table 5.6: Types of Non-tariff Measures Imposed by Indonesia

Code	NTM by Type	Number of Coded NTMs	NTMs (%)
A	Sanitary and phytosanitary (SPS) measures	125	19.59
B	Technical barriers to trade (TBT)	323	50.63
C	Pre-shipment inspection and other formalities	55	8.62
D	Contingent trade protective measures	44	6.90
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	8	1.25
F	Price control measures, including additional taxes and charges	5	0.78
G	Finance measures	0	–
H	Measures affecting competition	3	0.47
I	Trade-related investment measures	0	–
J	Distribution restrictions	1	0.16
K	Restriction on post-sales services	0	–
L	Subsidies (excluding export subsidies under P7)	0	–
M	Government procurement restrictions	0	–
N	Intellectual property	0	–
O	Rules of origin	0	–
P	Export-related measures	74	11.60
	Total coded NTMs	638	100.00

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

As presented in Table 5.6, TBT is the most widely used NTM in Indonesia, accounting for 50.6 percent of NTMs, followed by SPS measures at 19.6 percent, and pre-shipment inspection at 8.6 percent. Among the non-technical measures implemented in the Indonesian NTM database are non-automatic licensing, quotas, prohibitions, and quantity control measures–other than SPS or TBT reasons (E); price control measures, including additional taxes and charges (F); measures affecting competition (H); and distribution restrictions (J).

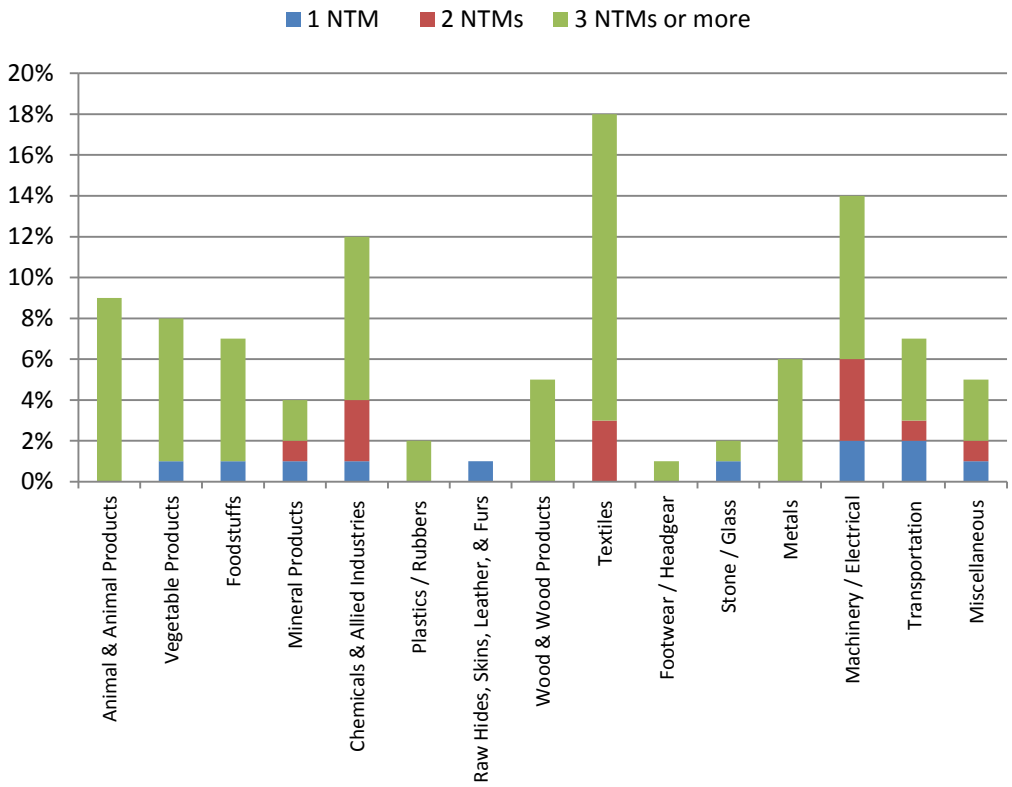
Table 5.6 also suggest that at the national tariff lines, currently the most widely used NTM for products is technical measures. There are 19,612 products subject to TBT (37.8 percent), surpassing the number of products whose imports require importers with SPS (36.4 percent). The third most widely used import NTMs is pre-shipment inspection (C), which covers 5,203 products.

Indonesia's NTMs data compilation also reveals that 66 types of NTMs have been imposed in Indonesia. Out of these types, the most commonly used in Indonesia is the authorisation requirement for TBT reasons. There are 4,737 tariff lines subject to authorisation requirement for TBT reasons, which cover 12.94 percent of total NTMs. The second most common is traceability information requirements, with a total of 3,671 tariff lines subject to this measure, accounting for 10.03 percent of total NTMs. The third most used NTM is registration requirements for importer for TBT reason, and the fourth is pre-shipment inspection. There are 2,367 tariff lines (or 6.47 percent of total NTMs) and 2,366 tariff lines (or 4.47 percent of total NTMs) subjected to this measure. Other measures that are commonly used in Indonesia are export registration, which accounts for 2,181 tariff lines (5.96 percent); labelling requirements for TBT reasons for 2,062 tariff lines (5.63 percent); labelling requirements for SPS reasons for 1,630 tariff lines (4.45 percent);and 1,533 tariff lines requiring measures to pass through specified port of customs (4.19 percent).

5. Multiple non-tariff measures

Another interesting note on NTMs imposed by Indonesia is that the imposition is characterised by the simultaneous application of many measures (multiple NTMs) to the same product, as shown in Figures 5.1 and 5.2. This can translate into complicated compliance verification processes for traders. Figure 5.1 shows the multiple NTMs on total NTMs (total affected products). From Figure 5.1, the results show that 92 percent of Indonesia's products are subject to multiple NTMs, while only 6.12 percent of Indonesia's tariff lines are subject to two NTMs, and 1.81 percent to one NTM.

Figure 5.1: Indonesian Tariff Lines subject to Multiple NTMs, by Products (%)

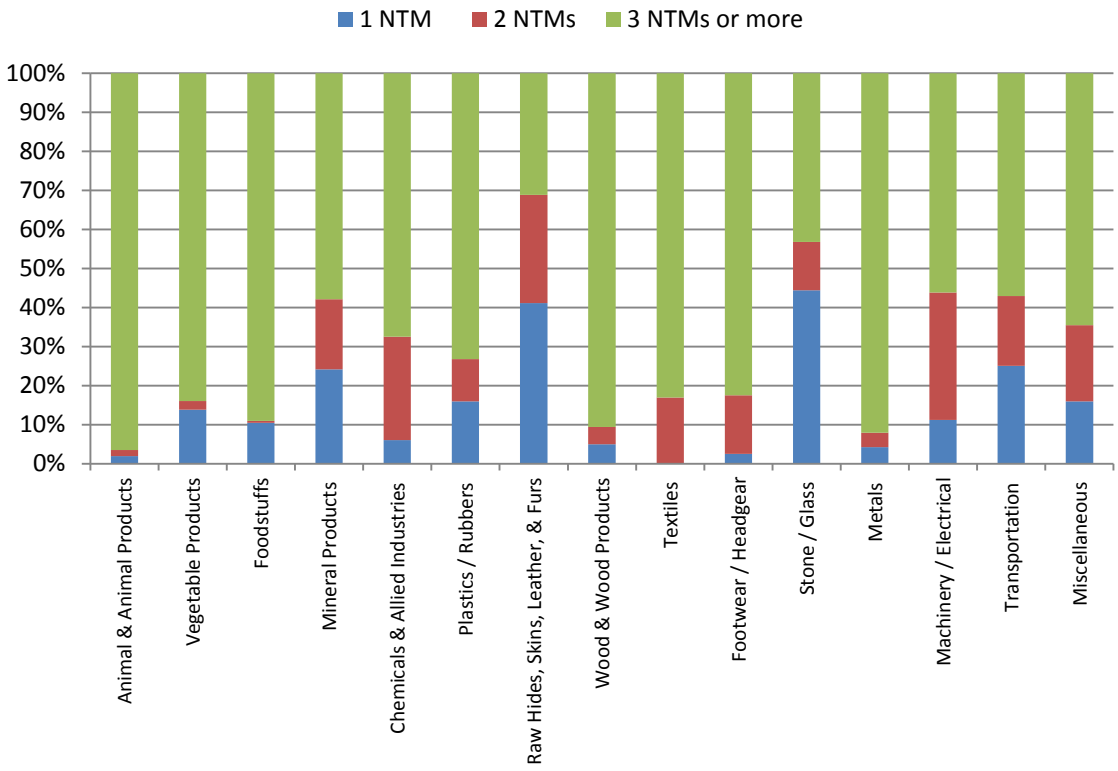


Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Based on Figure 5.2, most of Indonesia's product groups have total NTMs exceeding their total number of tariff lines. This indicates that some products within that group are subject to more than one NTM, compared to the number of tariff lines in each product. Vegetable products and textile and textile products have the highest NTM per tariff lines.

The number of tariff lines covered by NTMs is 6,466 – and this is not the total number of because several tariff lines have more than one NTM. Summing up all NTMs across the 10-digit Harmonized System (HS) level, data reveal that the total number of NTMs is 36,609. Some of those NTMs might have legitimate reasons. Some NTMs are policy measures on security or public health, such as transport of firearms or explosives, and trade in dangerous chemicals and radioactive materials. A number of NTMs are to ban the trade of certain items, such as opium and narcotic drugs.

Figure 5.2: Indonesian Tariff Lines subject to Multiple NTMs, by Products



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data

Figure 5.2 shows that most product groups have three NTMs or more.[14] Of animal and animal products, 96.5 percent are subject to three or more NTMs, while 92 percent of metal products, and 90 percent of wood and wood products are both subject to three or more NTMs.

6. Recommendations

From the previous analysis, findings reveal that cases of multiple NTMs are common in Indonesia, where almost 92 percent of products are subject to three or more NTMs, with some of these coming from a single regulatory agency, while others come from multiple regulatory agencies. The following are some policy recommendations for Indonesia:

[14] As presented in Figure 5.1, the total products that are subject to three or more NTMs are 92 percent.

Undertake a regular review of existing policies and regulations to identify policies and regulations that are impacting negatively on customers, and which are not achieving the government's objectives.

Improve the coordination with other government agencies when issuing trade regulations.

Set up a regulatory and/or oversight body with strong analytical capabilities on NTMs. This body must be competent and capable of designing better NTMs, and in conducting a deeper analysis on the impact of this complex regime, which could cause significant costs and delays for Indonesian businesses and consumers. According to the World Bank (2008), best practice suggests that a regulatory and/or oversight body should not be located in a line ministry as other ministries could resent being put under that authority. Instead, the regulatory and/or oversight body should be placed either under the Prime Minister's or the President's authority, or be set up as an independent body.

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CHAPTER 6

Non-tariff Measures in the Lao People's Democratic Republic

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1. Introduction

Since the introduction of the New Economic Mechanism in 1986, the Lao People's Democratic Republic (Lao PDR) has liberalized its trade through unilateral tariff reduction. Hence, its highest tariff rate is now 40 percent, down from 150 percent in 1995; and over half of its tariffs are under 5 percent. Its tariff regime has become more liberal when the country came under the umbrella of the Association of Southeast Asian Nations (ASEAN), which accounts for most of the country's trade. Under ASEAN, currently 89 percent of the total products have an import tariff of 0 percent and the proportion will increase to 96 percent in 2018. As in many other countries, non-tariff measures (NTMs) are gaining importance in controlling and hampering the flow of international trade. Several ministries in the Lao PDR are involved in formulating and implementing such regulations that may have a trade impact, and frequently new regulations are developed with little regard to the negative impact these may have on the trading community.

The Economic Research Institute for ASEAN and East Asia (ERIA), in collaboration with the United Nations Conference on Trade and Development (UNCTAD), has collected NTM data for all ASEAN countries. Based on this dataset, this chapter aims to provide insight on NTMs in the Lao PDR.

Table 6.1 summarizes the comprehensiveness of the data on NTMs for Lao PDR. There are a total of 70 NTM-related regulations. These regulations yield 301 NTMs, which is many folds higher than a number of NTMs reported to the WTO of 12 NTMs. In addition, those 70 NTM-related regulations are issued by 14 institutions. Interestingly, Table 6.1 reveals that every tariff line is affected by at least one NTM.

[15] The researcher would like to thank Mr. Saygnasak Sengaloun and Mrs. Phonesavanh Sittideth for their assistance in compiling NTM data of Lao PDR.

Table 6.1: Comprehensiveness of Non-tariff Measures

Number	Comprehensiveness	Number
1	Total NTM-related regulations	70
2	Total NTMs reported to the WTO	12
3	Total number of coded NTMs	301
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products	9,558
	b. Share of the number of affected products to the number of total products (%)	100%
5	Total issuing institutions	14

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2. Types and sources of legal documents

According to the Law on Legislation Making (2012), the country's legislation of general application consists of the following: (1) the Constitution; (2) laws; (3) resolutions of the National Assembly; (4) resolutions of the Standing Committee of the National Assembly; (5) Ordinances of the President; (6) decrees of the government; (7) resolutions of the government; (8) orders and decisions of the Prime Minister; (9) orders, decisions, and instructions of the minister, minister-equivalent, and head of a government authority; (10) orders, decisions, and instructions of the provincial governors and capital governors; (11) orders and decisions of the district and municipality chiefs; and (12) village regulations.

As illustrated in Table 6.1, among the legal documents, 70 contain non-tariff measures. Two-thirds of the legal documents with NTMs are decisions and instructions of the ministers and one-fifth are laws.

All legal documents are officially in the Lao language and most of them can be found in two main electronic sources – the Lao Official Gazette and the Lao Trade Portal. The Lao Trade Portal also provides unofficial English translation to a number of laws and regulations.

3. Non-tariff measures in the Lao PDR

To better understand NTMs in the Lao PDR, NTM data were analysed in detail. It may be noted that NTM data analysis started at the measure level. That means regardless of a number of tariff lines affected, each registered measure is counted as one. For example, Decree on the Control of the Movement of Animals and Animal Products,

number 230/GOL dated on 4th June 2012, indicates that 'To import of livestock and animal products, the import permit issued designated by the relevant department of the Ministry of Agriculture and Forestry is required'. This is an NTM and classified as A14 according to UNCTAD's February 2012 Version Classification. This measure affects 913 national tariff lines. It is, however, counted as one measure. The national tariff line of the Lao PDR is at 8-digit HS Code and the total number of tariff lines is 9,558.

Table 6.2 shows a total of 301 measures registered and it may be noted that all the national tariff lines are affected by at least one NTM. Among all registered measures, the technical barriers to trade (B chapter, NTM code) accounts for the largest share at 30.2 percent and affects 19.4 percent of all the national tariff lines. Interestingly, export-related measures (P chapter, NTM code) account for 27.2 percent and affect 35.8 percent of all tariff lines. Price control measures (F chapter, NTM code) accounts for 15.9 percent but affects all the national tariff lines. Sanitary and phytosanitary (SPS) measures (A chapter, NTM code) accounts for 12.6 percent and affects about 21 percent of all tariff lines. Share of chapter E on non-technical licensing, quotas, prohibition and quantitative measures is 8.6 percent of all measures, but they affect only 4.6 percent of all tariff lines. Pre-shipment inspection and other formality measures (C chapter, NTM code) account for a smaller share, at 4.7 percent of total NTMs, but affect a sizeable portion or 24.3 percent of tariff lines. Measures under F chapter account for less than 1 percent of all measures. Measures under chapter D, H and I were not found.

Table 6.2: Non-tariff Measures by Type

Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	38	12.6
B	Technical barriers to trade (TBT)	91	30.2
C	Pre-shipment inspection and other formalities	14	4.7
D	Contingent trade protective measures	0	0
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	26	8.6
F	Price control measures, including additional taxes and charges	48	15.9
G	Finance measures	2	0.7
H	Measures affecting competition	0	0
I	Trade-related investment measures	0	0
J	Distribution restrictions		
K	Restriction on post-sales services		
L	Subsidies (excluding export subsidies under P7)		
M	Government procurement restrictions		
N	Intellectual property		
O	Rules of origin		
P	Export-related measures	82	27.2
	Total coded NTMs	301	100

NTM = non-tariff measure.
Notes: The classification and NTMs codes follow the UNCTAD Classification, 2012 Version. The ERIA–UNCTAD's data collection of NTMs for ASEAN countries does not include the collection of J–O NTMs.
Sources: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Table 6.3 gives an overview of the number of measures by each issuing agency. Data show that NTMs involved not only commerce agencies but other line ministries. Measures issued by Ministry of Industry and Commerce account for 18.6 percent of a total number of measures. The largest share of NTMs comes from Ministry of Agriculture and Forestry, 19.9 percent. The government's office and Ministry of Health both have about 18 percent share of all NTMs. Measures issued by the Ministry of Finance account for 7.3 percent. Other line ministries have their own shares from the total number of NTMs at less than 3.5 percent.

Table 6.3: Non-tariff Measures by Issuing Agency

Number	Issuing Agency	Number of NTMs	Total NTMs (%)
1	Government's Office	55	18.27
2	Ministry of Health	53	17.61
3	Ministry of Finance	22	7.31
4	Ministry Agriculture and Forestry	60	19.93
5	Ministry of Natural Resource and Environment	6	1.99
6	Ministry of Industry and Commerce	56	18.60
7	Ministry of Public Work and Transport	7	2.33
8	Ministry of Energy and Mine	6	1.99
9	Ministry of National Defence	9	2.99
10	Ministry of Information Culture and Tourism	10	3.32
11	Ministry of Telecommunication and Post	6	1.99
12	President's Office	1	0.33
13	Bank of Lao PDR	9	2.99
14	Ministry of Home Affairs	1	0.33
	Total	301	100

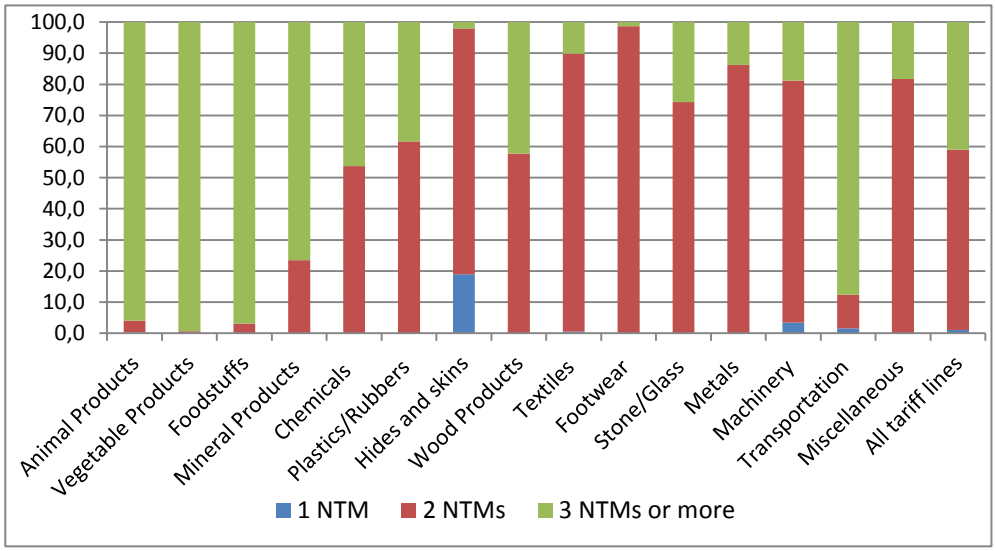
Sources: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Figure 6.1 shows the 'depth' of NTMs in each product group. More than 95 percent of animal products, vegetable products, and foodstuffs are subject to three or more NTMs. Similarly, a large number of transportation (88 percent) and mineral products (76 percent) are subject to three or more NTMs. The rest of the product groups have the majority of their tariff lines subject to two NTMs. If all the product groups were combined, figures show that 58 percent of all tariff lines were subject to two NTMs, 41 percent of all tariff lines were subject to three or more NTMs, and 1 percent is subject to one NTM.

Complementing Figure 6.1, Figure 6.2 shows the average number of NTMs faced by each group of products. As shown, the number of NTMs faced by each group of product varies substantially. Animal and animal products are affected by more than 22 NTMs on average—where nine NTMs are SPS and seven NTMs are export-related measures. Similarly, vegetable products also face as high as 20 NTMs on average—with nine on SPS, six on export-related measures and 5 on price control and pre-shipment measures. Another group of products that faces a large number of NTMs is foodstuffs. On average, foodstuffs is subject to 17 NTMs—eight SPS, five price control measures, and

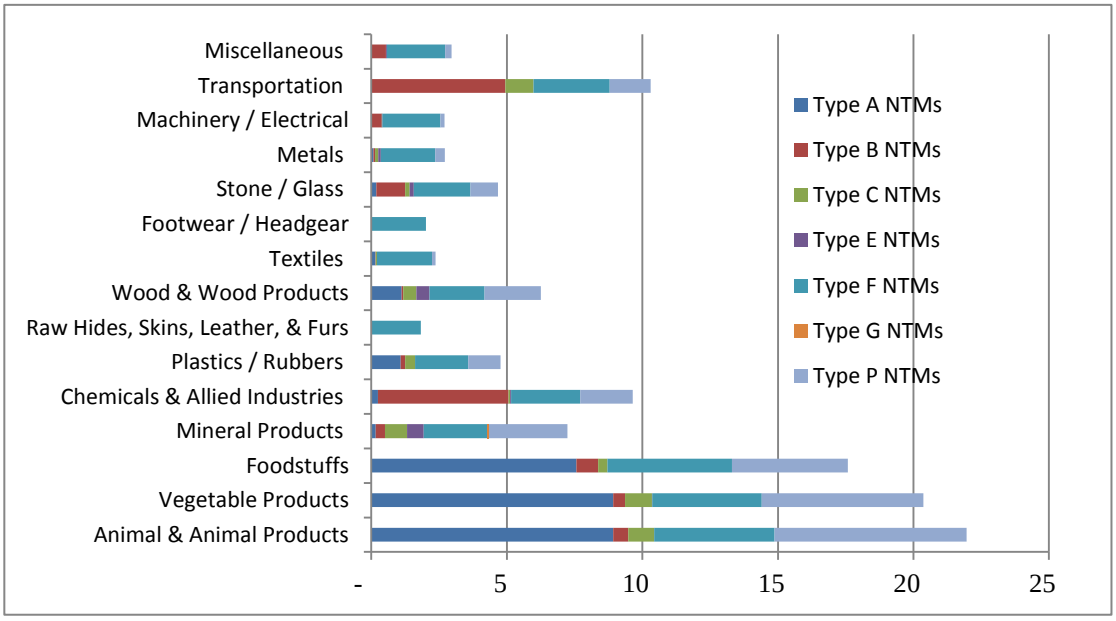
four export-related measures. On the other hand, raw hides and skins, footwear, and textiles are subject to only two NTMs on average; and plastics/rubbers, stone/glass, and miscellaneous products are subject to less than five NTMs.

Figure 6.1: Tariff lines in Each Product Group Affected by One or More Non-tariff Measure (%)



Sources: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Figure 6.2: Average Number of Non-tariff Measures Faced by Product Group



Sources: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

4. Other observations

In February 2013, the Lao PDR became a member of the World Trade Organization (WTO). The process of WTO membership, coupled with regional integration, has contributed to a great extent to improving the legal environment of the country. Over the past few years, a large number of amended laws and new legislations have been approved. The improvement of the legal environment is, however, an ongoing process. It is expected that a number of legislations will be issued in the coming years, which will likely change the NTMs stock of the Lao PDR.

The analysis above suggests that most of the regulations that contain NTMs are legislations at the ministry level. However, unlike the country's standard laws, ministry-level legislations are not readily available and accessible. Even within the ministry, stock-keeping of legislation is not centralised but rather kept within the issuing departments. This causes, to some extent, redundancy of regulations as some agencies issue new regulations without taking into account the existing ones. This style of stock-keeping of regulations also hinders the efforts to collect a comprehensive NTM data in the future.

The large number of NTMs issued by various line ministries highlights the importance of enhancing the awareness and knowledge on NTMs. The high incidence of NTMs also reflects the situation where line agencies might have low awareness or knowledge of NTMs and that they do not fully realize the potential impact these regulations could have on trade. The high incidence, depth, and large presence of non-technical measures suggest that there is an urgent need to streamline NTMs in the Lao PDR.

As part of WTO membership and ASEAN commitments, the Lao PDR is already engaged in modest streamlining of its stock of NTMs. The Ministry of Industry and Commerce has, through the Trade Development Fund supported by development partners, set up a clear agenda to streamline the NTMs of the Lao PDR in the coming years. The ministry has already taken initiatives by forming the NTMs review working group with representatives coming from line ministries, the private sector, and research institutes. In addition, the ministry has also collected data on NTMs and made the NTM database available at its trade portal.

5. Recommendations

The findings that both the incidence and depth of NTMs are high in the Lao PDR suggest that there is an urgent need to streamline NTMs in the country. Taking into consideration the initiatives already taken by the Ministry of Industry and Commerce, this chapter provides the following policy recommendations:

- The Ministry of Industry and Commerce needs to keep its momentum in streamlining NTMs. In addition to forming the NTMs review working group, it needs to include NTM issues in the agenda for trade-related meetings among high-ranking officials to gain political traction and support in streamlining the NTMs. The political support from line ministries is necessary because NTMs involve not only the Ministry of Industry and Commerce but also other line ministries where the majority of NTMs originate.
- The Ministry of Industry and Commerce could make use of the ERIA–UNCTAD NTM database to complement its database, which can increase comprehensiveness and become more up-to-date.
- It is necessary to enhance the knowledge and capacity of stakeholders on NTMs. NTM data collection and analysis, as well as streamlining efforts, should be pursued and enhanced further. To ensure the sustainability of knowledge and the capacity-building process, training of trainers should be undertaken. This will ensure the availability of local and in-house expertise in line agencies. As noted earlier, some line agencies have limited awareness on the potential impact their regulations could have on trade. The participation of local academic and research institutions should be encouraged.
- Line ministries and government agencies need to stocktake their regulation functions and improve the stock keeping of those regulations. All regulations should be readily available and accessible. Centralized sources, such as the Lao Official Gazette and the Lao Trade Portal, should be optimally utilized. This will not only improve the collection of NTM data but also improve the legal environment of the country.

- As more legislation is expected to be issued in the coming years – driven by WTO membership and the ASEAN integration – timely and regular updating of the NTM database in the next few years should be undertaken. The frequency of updating the database could be less in later years.

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CHAPTER 7

Non-tariff Measures in Malaysia

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1. Introduction

Regulatory heterogeneity is a challenge for increasing trade, harmonizing standards, and creating an integrated Association of Southeast Asian Nations (ASEAN) single market. A significant number of non-tariff measures (NTMs)[16] prevail, including non-tariff barriers (NTBs)[17] (RSIS, 2013), arising primarily from diverse national standards and regulations (Pettman, 2013; Norani, 2014).

Efforts are underway to harmonize regulatory standards under the ASEAN Economic Community (AEC). However, there are information shortcomings on the extent of the diversity of NTMs in the various sectors within the ASEAN countries. The picture on NTMs remains sketchy, as the existing databases lack complete information. For this purpose, there is a need for a nuanced understanding on the types and forms of standards and regulations imposed by the member nations not just for recognizing regional measures but also for allowing member nations to adopt each other's regulations and plausibly harmonize some standards within the region.

This chapter constructs and applies a new database to provide a comprehensive assessment of NTMs from the Malaysian perspective. More specifically, the chapter details the diverse types of NTMs for the various sectors based on acts and regulations that prescribe the conditions for importing into and exporting from Malaysia.

[16] NTMs are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on the international trade in goods, changing quantities traded or prices, or both (UNCTAD, 2010).
[17] Not all NTMs are NTBs.

2. Non-tariff measures database

This chapter deals only with public regulations and standards set by the government measures. The NTMs are drawn directly from a total of 64 related acts and regulations in Malaysia.[18] Only laws[19] enacted by the federal legislature are compiled in the database.

The Food Regulations 1985[20] of the Food Act 1983,[21] which regulate the various aspects of food standards in Malaysia, are analysed separately in this chapter. The reason for this is that the food sector is highly regulated. All food, beverage, and edible agricultural products manufactured locally or imported are required to comply with the guidelines stipulated in the Food Regulations 1985.

The NTMs are based on the classification of import and export measures by the United Nations Conference on Trade and Development (UNCTAD). The database and classification applied in this chapter is considered to be more comprehensive than the measures depicted in the current ASEAN database.[22]

3. Overview of non-tariff measures

Table 7.1 provides some general statistics on the NTMs in Malaysia based on the newly constructed database. Clearly, the number of notifications made at the World Trade Organization (WTO) is not a reflection of the number of NTMs in the country (see also Cadot et al., 2013; Malouche et al., 2013). The total number of NTMs recorded for Malaysia is 713, affecting approximately 54 percent of the total tariff lines.

[18] If the act comes with corresponding regulation(s), only the latter is compiled for the database. This is because regulations, commonly known as 'subsidiary legislations', are more specific in the description as they are guidelines that dictate how the provisions of the act are applied. The reference to regulations will also avoid any redundancy in coding of the NTMs.
[19] Malaysian written laws are contained in codes and statutes, known as acts, ordinances, and enactments. Acts are laws enacted by the Parliament. Ordinances and enactments refer to laws enacted by state legislative assemblies.
[20] Until 2014, several amendments of the regulations have been made.
[21] There are four regulations under the Food Act 1983: Food Export (Issuance of Health Certificate for Export of Fish and Fish Product to the European Union) Regulation 2009, Food Regulations 1985 (amended 2014), Food Hygiene Regulations 2009 (amended 2014), and Control of Tobacco Product Regulations 2004 (amended 2013).
[22] NTM database for ASEAN. http://www.asean.org/communities/asean-economic-community/item/non-tariff-measures-database.

Table 7.1: Non-tariff Measures in Malaysia

No.	Comprehensiveness	Number
1	Total NTM-related regulations	64
2	Total NTM reported to the WTO	252
3	Total number of coded NTMs	713
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products	5,127
	b. Share of the number of affected products to the number of total products (%)	54.44%
5	Total issuing institutions	13

Notes: The total number of notifications made at the WTO by Malaysia for TBTs is 216 and for SPS, 36.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Of the total 13 ministries that administer the acts and regulations with trade-related measures, the Ministry of Health is considered the most important, based on the number of NTMs found in the written laws that come under its portfolio (Table 7.2).

Table 7.2:Non-tariff Measures in Malaysia, by Issuing Institutions

Number	Issuing Institutions	Number of NTMs	%
1	Ministry of Health	502	70.41
2	Ministry of Agriculture and Agro-Based Industry	86	12.06
3	Ministry of Natural Resources and Environment	39	5.47
4	Ministry of Plantation Industries and Commodities	27	3.79
5	Ministry of Human Resources Malaysia	14	1.96
6	Ministry of Finance	13	1.82
7	Ministry of Foreign Affairs	9	1.26
8	Ministry of Home Affairs	8	1.12
9	Energy Commission	5	0.70
10	Malaysian Communications and Multimedia Commission	4	0.56
11	Other Institutions	6	0.84
	Total	713	100.00

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Overall, the NTMs in Malaysia are highly concentrated as they are distributed only across seven out of the 16 chapters (Table 7.3). Technical measures dominate the NTMs as they constitute 84 percent of total reported NTMs.

Table 7.3:Non-tariff Measures in Malaysia, by Non-tariff Measure Type

Code	NTM Type	Number of NTMs	%
A	Sanitary and phytosanitary measures	259	36.33
B	Technical barriers to trade	332	46.56
C	Pre-shipment inspection and other formalities	5	0.70
D	Contingent trade protective measures	24	3.37
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	9	1.26
F	Price control measures including additional taxes and charges	12	1.68
P	Export-related measures	72	10.10
	Total coded NTMs	713	100.00
	Technical Measures	596	83.59
	Non-technical Measures	117	16.41
	Total coded NTMs	713	100.00

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

4. Special case: the food sector

4.1. Food standards, regulations, and international trade

Governments usually set standards for food imports that require foreign producers to meet same standards required of domestic producers (Mitchell, 2003). Likewise, ASEAN member countries are found to arbitrarily adopt food control systems under sanitary and phytosanitary (SPS) measures for imports, despite the fact that ASEAN has several bodies[23] dealing with food safety (RSIS, 2013). The food sector is therefore highly regulated, with various measures related to product characteristics, production, processing, and distribution. The complexity in regulations for the food sector reflect consumers' demand for food safety, firms' reputation for providing safe food and maintaining global market shares, and new hazards that surface in global food trade. These regulations, however, differ across countries in terms of types/forms and desired/ stringency levels, for example, different levels of tolerance for food safety risks and different levels of accidental contamination. The regulations also differ significantly

[23] These bodies include the ASEAN Expert Group on Food Safety, the ASEAN Task Force on Codex, the ASEAN Consultative Committee on Standards and Quality, and the ASEAN Sub-Committee on Food Science and Technology.

across food types, such as raw and processed food, less and highly perishable food products, and products with low or high incidence of risks for human health.

Hence, differences in regulations, resulting from differences in regulatory approaches and capacity and consumer risk preferences, result in multiple safety regimes that could disrupt trade and cause conflict between countries. However, Buzby and Unnevehr (2003) argue that these differences could in fact spark more dialogue between countries, leading to change and improvement in the food safety systems. Further, some argue that implementing food safety standards represents increased compliance costs to firms. Standards may therefore act as a barrier to trade. Notwithstanding that, standards can solve information asymmetries between buyers and sellers and reduce transaction costs (Schuster and Maertens, 2015; Athukorala and Jayasuriya, 2003).

4.2. Regional source for food imports

Malaysia's food imports from ASEAN recorded an average annual growth rate of 15.9 percent relative to global food imports at 12.5 percent for 2000–2014 (Figure 7.1). Imports of food from the region rose from US$80 million in 2000 to US$4,408 million in 2014. The region is considered an important import source for food[24] (RSIS, 2013); it represents 30.4 percent of Malaysia's global imports of food in 2014. On a regional level, food is also identified as a potential sector to derive benefits when the AEC fully rolls out (Pettman, 2013).

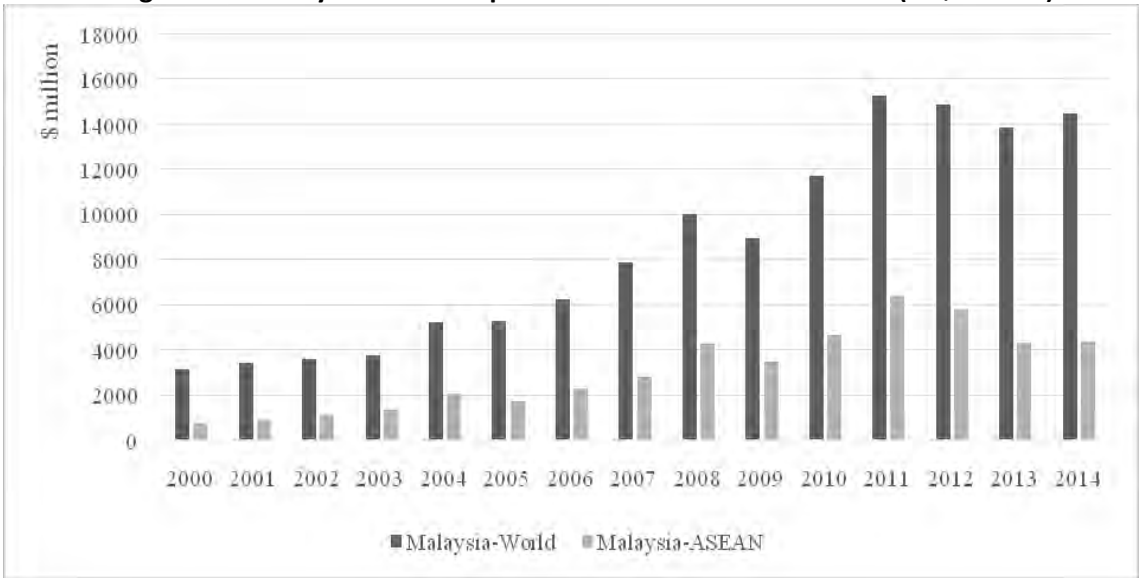
By categories of food products, high import concentration is noted, with fats, animal, and vegetable (Harmonized System [HS]15), fish, crustaceans (HS03), cereal, flour, starch (HS19), cereals (HS10), and cocoa (HS18) accounting for more than 60 percent of total imports from ASEAN (Table 7.4). The same products account for large shares in total imports of Malaysia from the world. The only exception is that though ASEAN is not an important source for dairy products, these imports constitute a relatively larger share of global imports to Malaysia.

Within ASEAN, food products are mainly imported from Indonesia and Thailand (Figure 7.2). While Indonesia gained in terms of import market share of Malaysia for food

[24] The move towards the AEC has increased intra-ASEAN trade, largely due to the increase in processed food trade.

products between 2000 and 2014, the opposite holds for Thailand where the reduction in import reflects the growing importance of Singapore and Viet Nam as food import sources for Malaysia. The four major import markets for food products serve the Malaysian market for different food categories.

Figure 7.1: Malaysia – Food Imports from ASEAN and the World (US$ million)



ASEAN = Association of Southeast Asian Nations.
Source: Calculated from UN COMTRADE.

The varying market and product concentration of food imports from the region suggest that NTMs are also going to affect the member states disproportionately. Efforts to harmonize standards within the region should also account for the intensity of trade across the different food subsectors.

Table 7.4: Malaysia – Import Concentration of Food Products from ASEAN and the World (%)

	Malaysia–ASEAN			Malaysia–World			2000				2014			
HS Category	2000	2006	2014	2000	2006	2014	SGP	THAI	INDO	VNM	SGP	THAI	INDO	VNM
HS 02 Meat, edible	0.79	0.10	0.86	6.18	4.25	6.12	0.10	1.21	0.17	2.56	0.37	2.15	0.00	1.57
HS 03 Fish, crustaceans	19.76	10.45	9.03	8.36	8.05	6.63	4.12	22.16	19.94	12.37	1.34	8.01	9.89	14.45
HS 04 Dairy products	1.42	2.45	0.42	9.66	7.19	8.06	0.75	0.10	3.71	0.66	1.80	0.12	0.21	0.63
HS 07 Edible vegetables	6.21	4.55	2.72	7.70	7.22	5.24	0.10	7.72	2.47	1.43	0.15	3.29	0.35	6.90
HS 08 Edible fruits, nuts	2.50	1.11	2.03	3.54	2.31	3.63	0.01	4.81	1.18	0.21	0.25	3.29	1.19	1.67
HS 09 Coffee, tea, spices	4.93	3.80	4.70	3.07	3.28	3.81	4.64	0.20	8.92	18.44	2.49	0.15	5.62	19.27
HS 10 Cereals	17.10	13.84	8.66	19.72	15.47	12.93	2.61	30.15	0.37	48.02	0.11	14.14	0.01	33.30
HS 11 Milling products	2.93	2.27	3.49	3.09	1.97	2.89	1.47	6.35	0.24	0.44	0.92	9.04	0.64	3.60
HS 12 Oilseeds	3.10	1.73	0.82	7.27	4.41	3.66	0.05	0.59	5.89	7.27	0.05	1.03	0.69	1.31
HS 13 Lac, gums, resins	0.18	0.09	0.13	0.40	0.39	0.34	0.31	0.02	0.24	0.00	0.14	0.03	0.18	0.00
HS 15 Fats, animal and vegetable	11.27	24.30	23.61	4.74	11.60	9.85	9.01	1.26	21.43	2.55	4.59	8.07	47.29	3.25
HS 16 Meat and fish preparations	1.99	1.39	1.04	1.07	0.89	0.93	1.52	3.49	0.13	4.67	0.69	2.23	0.30	1.13
HS 17 Sugars	5.34	1.49	7.74	8.80	7.27	7.83	0.67	10.16	1.76	0.03	0.54	23.33	0.46	3.50
HS 18 Cocoa	8.96	16.95	9.76	3.15	11.71	9.04	3.78	0.14	24.97	0.00	10.20	0.55	19.47	1.45
HS 19 Cereal, flour, starch	6.95	8.12	10.22	4.64	4.92	5.44	34.61	4.76	5.39	0.37	19.17	10.65	6.99	0.60
HS 20 Vegetable and fruit preparations	1.27	0.67	1.12	1.92	1.48	2.16	2.95	2.21	0.15	0.42	0.99	2.51	0.19	0.48
HS 21 Miscellaneous edible preparations	4.40	4.02	9.16	4.98	4.61	6.49	21.96	4.50	2.86	0.51	34.60	6.50	6.35	3.96
HS 22 Beverages	0.91	2.66	4.49	1.72	2.97	4.95	11.33	0.16	0.18	0.04	21.59	4.90	0.15	2.92

HS = Harmonized System; INDO = Indonesia; SGP = Singapore; THAI = Thailand; VNM = Viet Nam.
Source: Calculated from UN COMTRADE.

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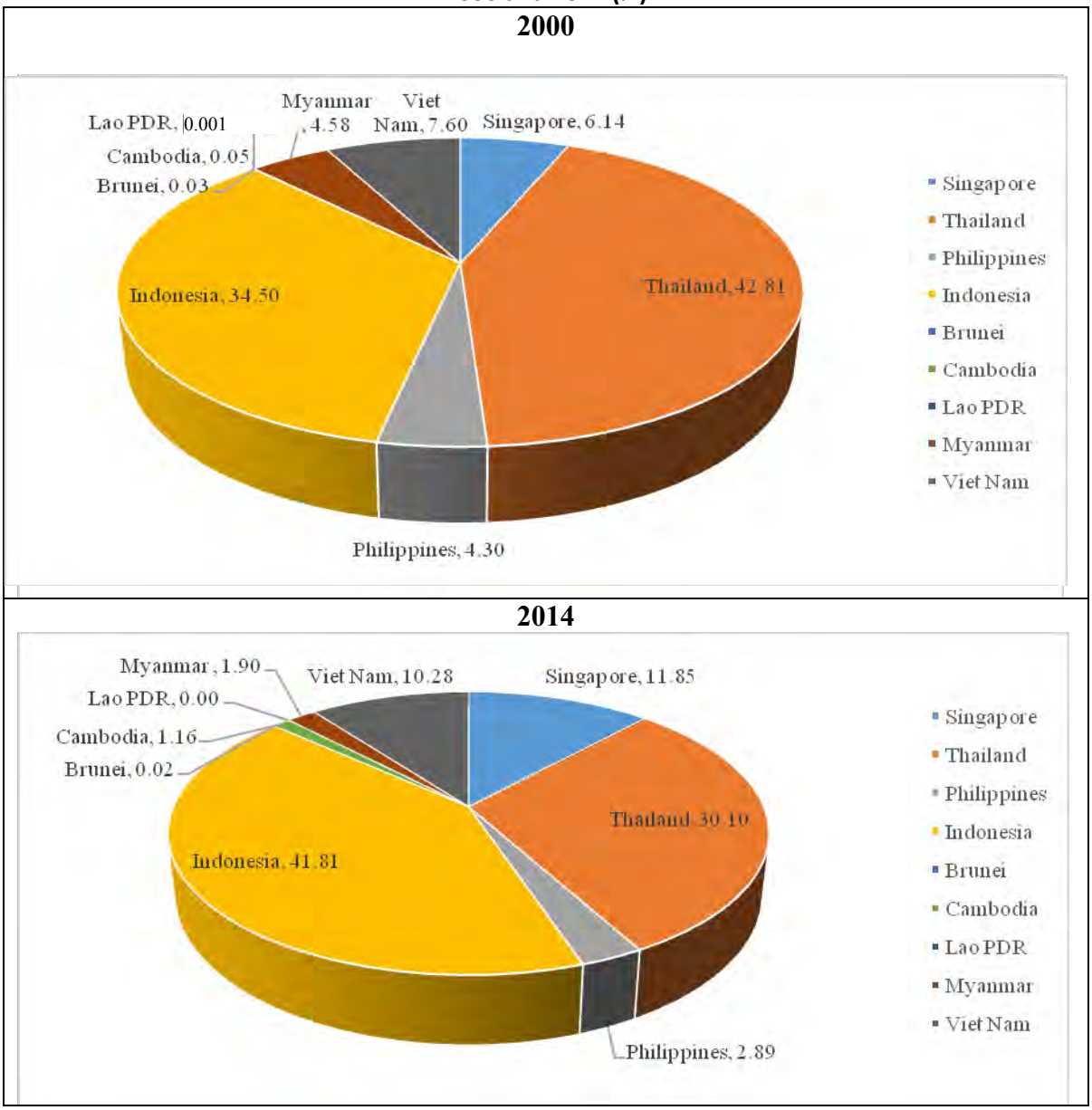
Figure 7.2: Malaysia – Geographical Concentration of Food Imports from ASEAN, 2000 and 2014 (%)



ASEAN = Association of Southeast Asian Nations; Lao PDR = Lao People's Democratic Republic.
Source: Calculated from UN COMTRADE.

4.3. Food safety standards in Malaysia

A total of 488 NTMs, affecting 1,349 tariff lines, are found in the food regulations, and all of which comprise technical measures. Within the technical measures category, 55 percent constitute technical barriers to trade (TBTs)[25] and the remaining 45 percent are

[25] TBTs are also the major impediment for the expansion of regional and global trade in processed food (AFBA, 2014).

SPS measures.[26] Since all NTMs hail from the TBT and SPS chapters, Table 7.5 reports the frequency counts of NTMs within those two chapters.[27]

Table 7.5: Frequency Counts of Non-tariff Measures for Sanitary and Phytosanitary and Technical Barriers to Trade Chapters

A	SPS	Number	%
A14	Special authorisation requirement for SPS reasons	4	1.80
A19	Prohibitions/restrictions of imports for SPS reasons n.e.s.	1	0.45
A21	Tolerance limits for residues of or contamination by certain (non-microbiological) substances	1	0.45
A22	Restricted use of certain substances in foods and feeds and their contact materials	125	56.31
A31	Labelling requirements	66	29.73
A33	Packaging requirements	9	4.05
A41	Microbiological criteria of the final product	1	0.45
A42	Hygienic practices during production	3	1.35
A51	Cold/heat treatment	6	2.70
A63	Food and feed processing	1	0.45
A64	Storage and transport conditions	1	0.45
A82	Testing requirement	4	1.80
B	SPS	222	100.00
B31	Labelling requirements	65	24.44
B6	Product identity requirement	37	13.91
B7	Product quality or performance requirement	164	61.65
	TBT	266	100.00

SPS = sanitary and phytosanitary; TBT = technical barriers to trade.
Source: Derived from the Food Regulations 1985.

Labelling requirements are even more important for a country like Malaysia, where more than half the population is Muslim, as such requirements apply to products containing pork and alcohol. In addition, among the ASEAN countries that follow the Codex Alimentarius guidelines,[28] only Malaysia makes nutrition labelling mandatory for energy, protein, carbohydrate, fat, and total sugars for foods that are commonly

[26] The SPS refers to measures to protect human, animal or plant life, or health.
[27] There are 42 and 31 sub-chapters for SPS and TBT, respectively, based on the UNCTAD classification.
[28] For other ASEAN countries that follow the Codex Alimentarius guidelines, nutrition food labelling is voluntary, unless nutrition or health claims are made on food packaging or if the food is for a special purpose (diabetic and fortified foods).

consumed (bread and milk, canned meat, fish, vegetables, fruit and fruit juices, salad dressing and mayonnaise), and for various types of beverages (Kasapila and Sharifudin, 2011; Pettman, 2013).

Within the 28 subcategories of the food sector, the frequency count of NTMs is highest for (i) salt and spice followed by (ii) sweetening substance, (iii) edible fat and edible oil, (iii) alcoholic beverage, and (v) tea, coffee, chicory, and related products (Table 7.6).

4.4. Harmonization of food trade in ASEAN: some thoughts

ASEAN members have begun to recognize the desirability of having common measures. For trade purposes, harmonization of standards enables food companies to adhere to one set of regional regulations instead of adjusting to a diverse array of regional standards of member countries. Following which, ASEAN members have expressed their intention to use global food standards[29] as a basis for harmonization efforts in the food sector at the regional level. Yet, there has not been much progress in this regard (AFBA, 2012).

One reason is that the diverse regulations that govern food and nutrition labelling across ASEAN rest on the different international guidelines followed by member countries when preparing national regulations. Kasapila and Sharifudin (2011) point out that for food and nutrition labelling, Singapore, Malaysia, Brunei, Lao People's Democratic Republic, Viet Nam, and Cambodia have followed the Codex guidelines[30] in preparing their regulations. Conversely, Thailand and the Philippines, to some extent, have adopted the United States nutrition labelling guidelines. Further, member countries with more developed food safety systems have also adopted the 'hazards'-based approach, which does not allow for regulatory convergence, as there is no common basis for the adoption of common food safety standards. What is needed is a shift towards a 'risk'-based approach, which comes with a scientific basis (see also Henson and Caswell, 1999), to adopt common safety standards.

[29] Organizations that are working to harmonize regulations in the food sector include Codex Alimentarius, the World Trade Organization, the Food and Agricultural Organization, the World Health Organization, the International Standardization Organization, the Global Harmonization Initiative, and the International Union of Food Science and Technology.

[30] The Codex Alimentarius is significantly relevant for international food trade, as the food standard issues cover specific raw and processed materials characteristics, food hygiene, pesticides, residues, contaminants, and labelling and sampling methods.

Table 7.6: Frequency Counts of Non-tariff Measures for Sanitary and Phytosanitary and Technical Barriers to Trade Chapters, by Product Group

Product Category	No.	A14	A19	A21	A22	A31	A33	A41	A42	A51	A63	A64	A82	B31	B6	B7
Cereal, cereal product, starch and bread	**25**				8	3								3	3	8
Malt and malt extract	**4**					1								1		2
Food aerating substance	**9**				1	3								3		2
Milk and milk product	**2**													1		1
Sweetening substance	**44**	1			17	5			2					4	1	14
Confection	**8**		1		4	1								1		1
Meat and meat product	**25**			1	4	4				1				4	3	8
Fish and fish product	**26**				5	3	1				1	1		3	2	10
Egg and egg product	**7**					1				3				1	1	1
Edible bird's nest and edible bird's nest product	**2**				1				1							
Edible fat and edible oil	**44**				19	2								2		21
Vegetable and vegetable product	**20**				4	3	2			1			2	3	1	4
Soup and soup stock	**2**				1	1										
Fruit and fruit product	**24**				5	4	2							4		9
Jam, fruit jelly, marmalade, and seri kaya	**7**					2								2		3
Nut and nut product	**11**				5			1								5
Tea, coffee, chicory, and related product	**34**				6	8								8	3	9
Cocoa and cocoa product	**8**				4										2	2
Milk shake	**1**															1
Salt and spice	**70**				23	3								3	8	33
Vinegar, sauce, chutney, and pickle	**16**				1	4							2	3		6
Soft drink	**19**				2	5								5	3	4
Natural mineral water	**0**															
Packaged drinking water	**4**	1				1	1							1		
Alcoholic beverage	**42**				8	5	1							6	8	14
Shandy	**3**				1	1								1		
Special purpose food	**23**				5	5	1			1				5	2	4
Water, ice, or steam	**3**	1														2
FOOD PRODUCTS*	**5**	1			1	1	1							1		
Total	**488**	**4**	**1**	**1**	**125**	**66**	**9**	**1**	**3**	**6**	**1**	**1**	**4**	**65**	**37**	**164**

Note: *Includes the general requirements for food products obtained through modern biotechnology. These guidelines were enforced on 8 July 2014.
Source: Derived from the Food Regulations 1985.

Notwithstanding the differences in the regulatory framework of member countries, various efforts are already underway to address the issue of harmonization. The ASEAN Consultative Committee on Standards and Quality and the ASEAN Consultative Committee on Standards and Quality Prepared Foodstuff Products Working Group are both responsible for the harmonization and convergence of food safety and quality standards. Following which, several initiatives have been launched. The ASEAN Common Principles of Food Control System, which includes regional requirements for the labelling of pre-packaged foodstuffs, provides some direction for member countries to align their national food and nutrition regulations with those generic labelling requirements. The ASEAN Food Reference Laboratories, which coordinate and monitor food-testing activities, support the ASEAN Common Principles of Food Control System. Finally, the ASEAN Risk Assessment Centre, tasked with risk assessment activities, recognizes the importance of the 'risk' approach for the harmonization of standards.

It is important to recognise that complete harmonization may not be practical or politically feasible. As such, harmonization of regulations in the subsectors that have high product coverage of NTMs (cover a large number of products) would make more sense. While harmonization of standards is often done through benchmarking with international standards, members also need to realise that improving region-wide regulatory practices may in turn help members overcome difficulties in adhering to international standards (RSIS, 2013; AFBA, 2012).

The premises for harmonization often build on the elimination of TBTs, having recognized that these are prominent in the region (AFBA, 2014). Not all NTMs (including TBTs) are NTBs. As pointed out by Malouche et al. (2013), the onus for policymakers should not be on the suppression of NTMs, given the legitimacy of these measures. From the Malaysian perspective, there are only a few recent cases of *potential* NTBs (not clearly defined NTBs) related to food products, as reported by other member countries. Table 7.8 presents three recent cases levelled by Viet Nam, Brunei, and Indonesia against Malaysia. Most of these cases have been resolved with the member countries.

Table 7.7: Recent Reported Cases of Non-tariff Measures/Non-tariff Barriers in Malaysia

NTM	Reporter	Issue	Concern	Status/ Remarks
Import licensing/SPS/ permits and related measures	VNM	Malaysia maintains TRQ for live pigs (HS 0103.91000, HS 0103.91000), live poultry (0105.11900, 010594190), pork of various kinds (HS 0203.11000, 0203.21000); poultry meat (0207.11000, 0207.12000, 0207.130000, 0207.14000), milk (0401.10110, 0401.20110, 0401.30110), chicken eggs and duck eggs (0407.00111, 0407.00112, 0407.00910, 0407.00920), round cabbage (0704.90110). While the tariff rate within quotas is from 10–25%, it has high outside quotas, from 20%, 40%, 50%, and 90% respectively. (31/5/2012)	-	Agency managing quotas and grant import license is the Animal Health Department. Other cooperating agencies include Ministry of Agriculture and Ministry of Health. (31/05/2012) TRQs are not applicable for ASEAN countries. VNM will revert since it needs to check with its private sector. (1/6/2012) VNM (12/7/2013): VNM considered this case resolved.
Import permit on meat products	BN	Export and import meat that pass through Limbang is being subjected to charges by the Malaysian Agriculture Department for import permit at RM0.10 per kg of meat products and RM10 per export permit.	It affects the price of meat products.	MY Comment: Sarawak State Government has agreed to waive the licence/permit fees as specified under the Third Schedule of the Veterinary Public Health Ordinance, 1999 for the import/export of livestock (animal and fish) and livestock products between Brunei and Sarawak, effective 1 March 2012. A letter to that effect has been sent to Brunei. (14/05/12)
Border measures	INDO	Malaysia requires imported wheat flour must obtain licence in advance, in accordance with the quota set by Malaysian authorities. (15/2/2012)	ATIGA Article 20 provides that ASEAN member states eliminate TRQs.	MY comment: The import licence or AP is required for monitoring purpose. No quota set for importation of wheat flour. (14/05/12) INDO: request MY to provide the relevant information. (LE/regulations/website) (1/6/2012) MY (12/7/2013): Refer to the information on www.customs.gov.my

ASEAN = Association of Southeast Asian Nations; ATIGA = ASEAN Trade in Goods Agreement; BN = Brunei; HS = Harmonized System, INDO =Indonesia; MY = Malaysia; NTB = non-tariff barrier; NTM = non-tariff measure; SPS = sanitary and phytosanitary; TRQ = tariff rate quota; VNM = Viet Nam.
Source: Malaysian International Trade and Industry (2015).

Thus, the focus should shift away from eliminating NTMs to streamlining NTMs across the region, irrespective of the regulatory rapprochement that is taken; mutual recognition[31] or harmonization. In this respect, given the high frequency of these measures in the food sector, this chapter contends that the harmonization of standards and regulations should give priority to the following two areas:

- labelling for SPS and TBT reasons; and
- restricted substances on food.

Though the above suggestion is based on the frequency of NTMs found in the food sector from the regulatory framework of Malaysia, AFBA (2014) has also identified the above two areas (among three others) as priorities for harmonization within ASEAN. It should also be sector specific as the food sector is highly diversified and trade within the region will undeniably be concentrated in a few subsectors.

5. Concluding remarks

To move forward in facilitating trade within the region, the food sector should be the focus of policymakers. The harmonization of standards and regulations in the food sector, more specifically, would be best done in a piecemeal fashion. First, the focus is to prioritise the task of harmonization by considering specific NTMs and specific subsectors of food highly tradable within ASEAN. Second, the focus is to examine which of the NTMs in the highly tradable sector of the region could impede trade.

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[31] Mutual recognition involves the acceptance of different forms of food safety regulation among countries as 'equivalent' (Henson and Caswell, 1999).

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CHAPTER 8

Report on Non-tariff Measures in Myanmar

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1. Introduction

There is a relationship between the reduction of tariffs arising from the World Trade Organization (WTO) multilateral agreements and numerous regional and bilateral level preferential trade agreements (PTAs), and the proliferation of non-tariff measures (NTMs). Efforts to reach a common understanding on the importance of the different types of NTMs and their impact on trading activities especially in developing countries have been challenging, and these efforts include those that were initiated in Myanmar.

The most challenging part in the study of NTMs in Myanmar is to be able to fully cover and review all regulations issued in the country. The second most challenging part is to identify the affected products in terms of the Harmonized System (HS) code. The preliminary step to compile the data based on the product groups has been done by the Myanmar team, and the more precise classification of products in the HS code is accomplished by the United Nations Conference on Trade and Development (UNCTAD).

2. The legal framework

The collection of data for NTMs requires knowledge on how legislation proceeds in a country. In Myanmar's legal system, the ministry having the jurisdiction drafts a legislative bill that is to be introduced. Based on this first draft of the legislation, consultations take place with other ministries concerned. The originating ministry that first drafted the legislation then revises the draft in accordance with the discussion results,

advice, and comments from the inter-ministerial consultations. For NTMs, the Ministry of Commerce may repeat the discussion and procedure to follow the advice of referral international nongovernment organizations. Once the required procedure is completed, the draft legislation is sent to the Attorney General for crafting it into its proper statutory form. The Office of the Attorney General prepares a comment to accompany the draft legislation, which is in turn submitted to the Hluttaw (Parliament) for further discussion. The draft legislation is also presented to the public through the media, such as newspapers. To incorporate the public's comments, the Hluttaw again revises the draft legislation. If the Hluttaw decides in favour of the legislation, the legislative bill is finalized, goes to the Office of the President, is signed, and it becomes law.

The sources of information for laws and regulations can be categorized into three. The Official Gazette is the most common and up-to date source of information on regulations issued at a point of time. The second source is the database of the Office of the Attorney General, which provides almost all laws, Cabinet orders, and Cabinet and ministerial ordinances. It is also supposed to be a comprehensive source of NTM-related regulations. However, the most comprehensive sources of regulations are the ministries themselves, where specific regulations affecting their trade activities are lodged.

There are many countries where regulatory functions are scattered over a number of ministries and agencies, with little incentive to work together and regulations are often adopted with narrow mandates domestically (Cadot, Munadi, and Ing, 2013). Myanmar is not exceptional among such countries. The Ministry of Commerce in Myanmar is now leading the effort to make regulations available in the forthcoming Trade Portal.

Since ASEAN is leading in improving transparency of its trade regulations, this chapter is a foundation for Myanmar being an ASEAN member to keep improving the transparency of trade regulations in the region.

3. Study coverage of non-tariff measures in Myanmar

Since no official database is yet available or all the standards referred to in Myanmar's legislation, it is difficult to confirm the full coverage of such legislation. For full and complete information on Myanmar's NTMs, two stages of collecting regulations were used. The first step undertaken was a survey of the websites, newspapers, and key informants of all ministries that were considered likely to issue regulations affecting their

and complete information on Myanmar's NTMs, two stages of collecting regulations were used. The first step undertaken was a survey of the websites, newspapers, and key informants of all ministries that were considered likely to issue regulations affecting their particular trade activities. The Ministry of Commerce was main source of information as it has been the most responsible organization in Myanmar for collecting trade related-regulations. The second stage was confirming the collected data with the Ministry of Commerce, where compliance of NTMs is monitored. The registration of NTMs is finalized by UNCTAD.

Table 8.1: Coverage of Non-tariff Measures in Myanmar

Number	Comprehensiveness	Number
1	Total NTM-related regulations	36
2	Total NTMs reported to the WTO	0
3	Total number of coded NTMs	172
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products	4,663
	b. Share of the number of affected products to the number of total products (%)	47.5%
5	Total issuing institutions	8

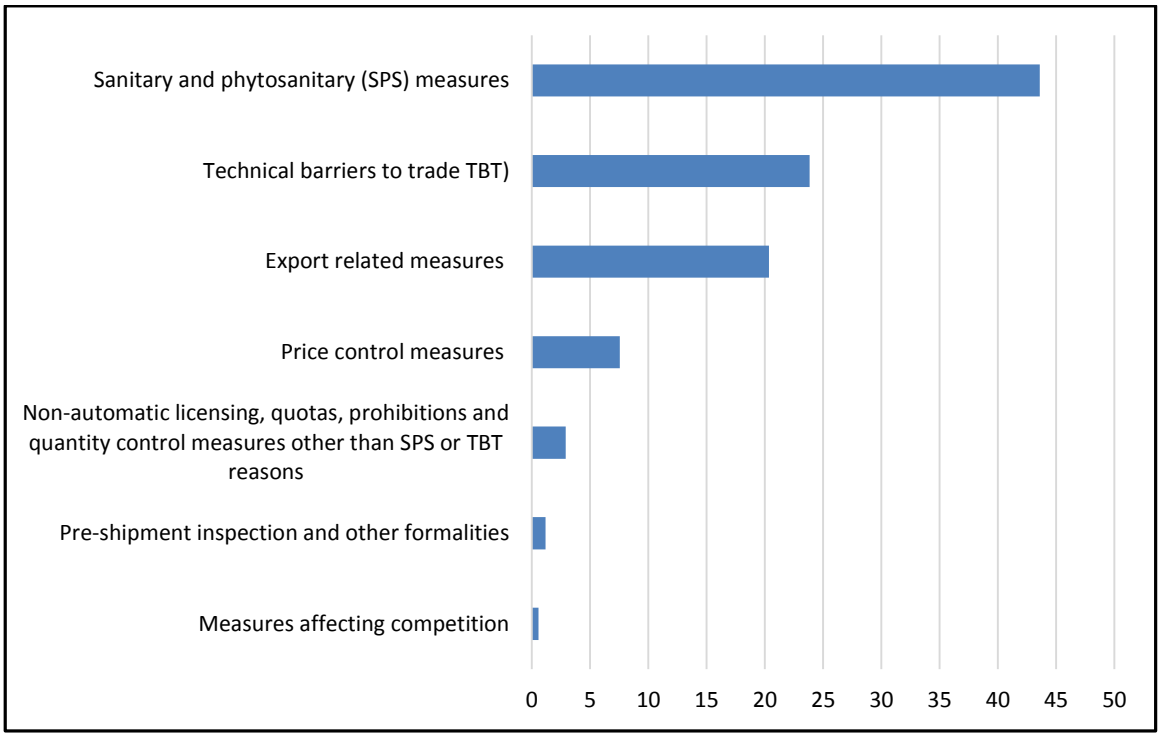
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Table 8.1 reveals the incidence of NTMs in Myanmar in terms of the frequency ratio. Overall, among the regulations issued and reviewed by mid-2015, 36 regulations were observed as NTMs and from them, 172 NTMs were coded and registered. Summing all NTMs across the 10-digit HS level, the data reveal a total of 4663 NTM-affected products in Myanmar 47.5 percent of product categories are covered by one or more NTMs.

4. Non-tariff measures by type

Myanmar had 100 percent frequency ratio of by-type NTMs on account of quantitative restrictions (Ando and Obashi, 2010). Some of these NTMs might have legitimate reasons. Some NTMs are policy measures concerning security, such as transport of firearms or explosives, or public health, such as trade in dangerous chemicals and radioactive materials. A number of NTMs are bans on trade, such as opium and drug narcotics.

Figure 8.1: Non-tariff Measures, by Type



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

The pattern of NTMs in Myanmar is similar to most ASEAN countries where technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures play a significant role in the incidence of NTMs. Data collection of NTMs in Myanmar reveals that the most widely regulated measure are SPS measures. The TBT measures are the second most widely used measures, followed by export-related measures.

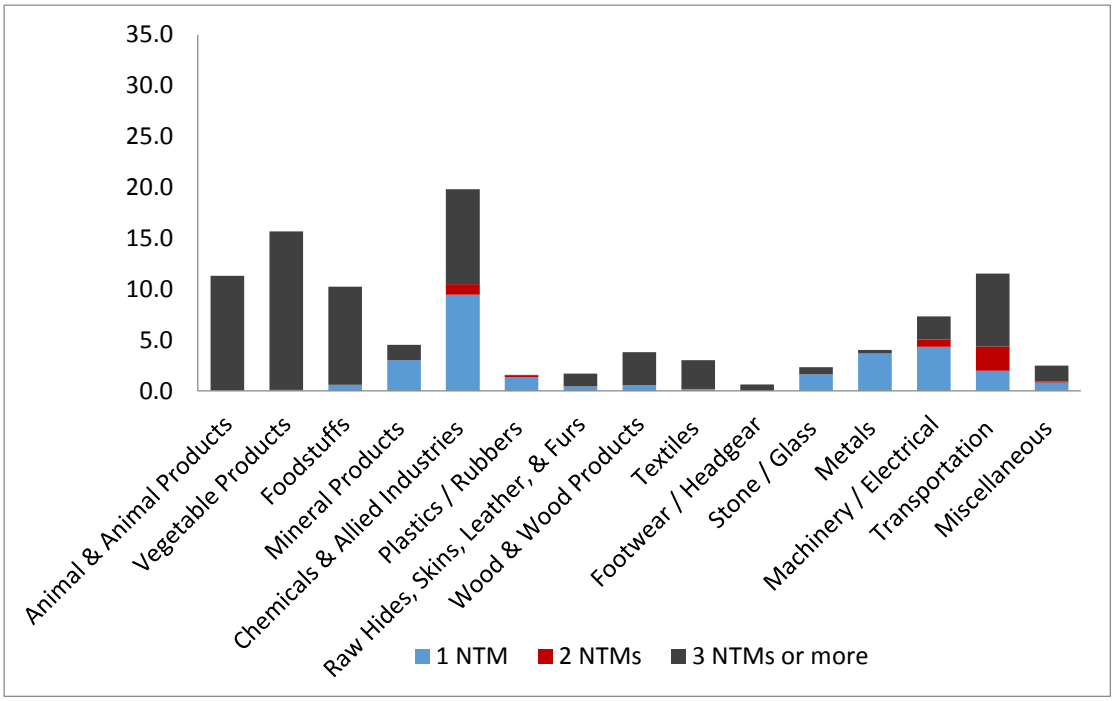
Table 8.2: Non-tariff Measures, by Type

Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	75	43.6
B	Technical barriers to trade (TBT)	41	23.8
C	Pre-shipment inspection and other formalities	2	1.2
D	Contingent trade protective measures		
E	Non-automatic licensing, quotas, prohibitions, and	5	2.9
F	Price control measures, including additional taxes and	13	7.6
G	Finance measures		
H	Measures affecting competition	1	0.6
I	Trade-related investment measures		
J	Distribution restrictions		
K	Restriction on post-sales services		
L	Subsidies (excluding export subsidies under P7)		
M	Government procurement restrictions		
N	Intellectual property		
O	Rules of origin		
P	Export-related measures	35	20.3
	Total coded NTMs	172	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

There are multiple NTMs on several products. Most of the product groups have total NTMs exceeding their total number of tariff lines. This indicates that some of the products within that group are subject to more than one NTM, compared or relative to the number of tariff lines in each product. As Ando and Obashi observed in 2010, Myanmar was found to cover all product lines with one or other types of NTMs. Compared to the previous study on Myanmar's NTMs (Ando and Obashi, 2010), it is observed from this study that finance control measures, such as multiple exchange rates and quantity control measures like quotas linked with export performance and quotas for sensitive product categories no longer exist in Myanmar's NTMs. Instead, technical measures such as marking, labelling, and packaging requirements have become important in Myanmar's NTM composition. An examination on the frequency of NTMs by type in Myanmar suggests that TBT measures are the most frequent measures, followed by SPS and safeguard measures, according to the data in 2014 (Cadot and Ing, 2015). This study confirms that SPS measures becomes the most regulated NTMs in Myanmar.

Figure 8.2: Incidence of Multiple Non-tariff Measures, by Product Group



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Figure 8.2 confirms the moderate use of NTMs in Myanmar. The chemicals and allied industries can be seen as the sector covered most by the greatest number of NTMs, but, only 20 percent of its tariff lines are covered by NTMs, and many of the product groups in its tariff lines are covered by one NTM only.

Of the total NTM incidence, 14.2 percent are on vegetable products with three or more NTMs, while almost 11 percent, 10 percent, and 9 percent of NTMs are related to animal products, foodstuffs, and machinery and electrical products, respectively. It is noted that animal and animal products, vegetable fat and oil, vegetable extract, and meat and fish are heavily covered by three or more NTMs (Figure 8.1).

Table 8.3: Number of Tariff Lines subject to Multiple NTMs, by Product Group

HS Code	Product Group	1 NTM	2 NTMs	3 NTMs or more
01-05	Animal & Animal Products	1	0	527
06-15	Vegetable Products	4	0	727
16-24	Foodstuffs	28	0	450
25-27	Mineral Products	141	0	70
28-38	Chemicals & Allied Industries	441	49	434
39-40	Plastics/Rubbers	63	9	2
41-43	Raw Hides, Skins, Leather, & Furs	20	0	59
44-49	Wood & Wood Products	26	0	151
50-63	Textiles	9	0	131
64-67	Footwear/Headgear	0	0	29
68-71	Stone/Glass	76	0	33
72-83	Metals	171	0	16
84-85	Machinery/Electrical	202	34	106
86-89	Transportation	93	110	335
90-99	Miscellaneous	38	5	73
Total		1,313	207	3,143

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Most of the NTMs related to vegetable products are SPS and TBT measures, but export-related measures such as certification required by the exporting country, export technical measures, and measures on re-export as well as licensing procedures with no specific ex-ante criteria are also included. Most of the NTMs related to animals and animal products and food stuffs are SPS measures such as labelling, marking and packaging requirements, conformity assessment related to SPS, storage and transport conditions, animal-raising or catching processes, export-related measures, and licensing for economic reasons as well as customs inspections, processing, and servicing fees. Regulations related to chemicals and allied industries' products contain TBT measures such as testing requirement and traceability information requirements, export technical measures, as well as licensing for economic reasons. The NTMs related to textile products can be found in the export and import rules under the CITES Convention and Operation System. Measures for textile products include TBT, export, and licensing for economic reasons. For transportation products, there are three NTM regulations for licensing or permit

requirements, authorization requirements for TBT reasons, and licensing for economic reasons.

5. Non-tariff measures by issuing institutions

According to the legislative procedure of Myanmar, the NTM-related regulations reviewed under the study are issued by the ministries concerned. The regulations reviewed in this study originated from the ministries that are considered as official sources of regulation.

Table 8.4: Non-tariff Measures by Issuing Institutions

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Ministry of Agriculture and Irrigation	22	13
2	Ministry of Health	18	10
3	Myanma Petroleum Product Enterprise,	9	5
4	Ministry of Livestock, Fisheries, and Rural	85	49
5	Ministry of Forestry and Environmental	19	11
6	Ministry of Communication and	2	1
7	Ministry of Home Affairs	16	9
8	Ministry of Commerce	1	1
	Total	172	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Regulations reviewed in this study are issued by eight different ministries. Most of the country's NTMs can be found in regulations issued by the Ministry of Livestock, Fisheries and Rural Development. The Regulation for Importation and Exportation of Animals and Animal Products, Animal Health and Development Law, and the Myanmar Marine Fishery Law regulate many NTMs related to the trade activities of animal and animal products and fishery products. The Ministry of Agriculture and Irrigation issues regulations provided under the Pesticide Law, the Plant and Pest Quarantine Law, and the Fertilizer Law, and ranks second in terms of the number of NTMs issued.

As far as the incidence of NTMs on products in terms of national tariff lines is concerned, the NTMs issued by the Ministry of Forest and Environmental Conservation have affected the most products including vegetable products and animals and animal products, which are the largest group of products affected by more than three NTMs. The

Ministry of Forest and Environmental Conservation is working in collaboration with the Convention on International Trade on Endangered Species (CITES) by issuing the CITES Convention and Operation system (2012) regarding the rules of export and import permits for CITES species. In addition to CITES, the Protection of Wildlife and Conservation of Natural Areas Law (1994) has affected the export of animal and animal products. The Environmental Conservation Law (2012) has affected products in many areas including transportation.

Notifications of the Myanmar Petroleum Products Enterprise issued by the Ministry of Energy contain many TBT measures and licensing for economic reasons. The National Food Law issued by the Ministry of Health and notifications from the Ministry of Home Affairs also regulate NTMs. Even though the Ministry of Commerce contributed with only one regulation to the NTM data of Myanmar, it covers 4405 national tariff lines as its notification is related to the licensing of many imported products.

Some ministries have drafted laws which are still in the legislation procedure process. The Ministry of Science and Technology, which is the national enquiry Point for technical barriers to trade (TBT), is in the process of drafting the law related to TBT. Since it is also the focal ministry for the responsibility of the Chemical Weapon Convention (CWC) and Myanmar is a member of CWC, the Ministry is also in the process to notify to the CWC. The Ministry of Science and Technology enacted the National Standard Law in 2014. However, as it has no rules yet the Ministry of Science and Technology is taking the leading role for coordinating with the relevant ministries in order to have the rules in place.

6. Conclusion

Many regulations related to NTMs in Myanmar are ratifications to the international conventions. To streamline NTMs, different approaches for different types of measures are required. For technical measures like TBT and SPS, standards harmonization and conformity assessment improvement are desirable and cost less for compliance. .For NTMs that are customs related, trade facilitation programmes that include infrastructure development and computerization should support the regulatory environment.

A regulatory environment with less bureaucracy and less cost of compliance is the desirable path for Myanmar. However, consumers are increasingly conscious about food

safety, calling for government intervention to ensure they are safe. Myanmar is like other countries that have resorted to the regulation of foodstuffs and agricultural products. The difficulty is to assess whether an NTM regulation in favour of consumer protection is truly an NTM and, to ensure it is not a non-tariff barrier. In conclusion, the transparency of regulations is an appropriate complement to the level of the comprehensiveness of NTM information, while a trade policy review mechanism is another solution to minimize the protectionist use of NTMs.

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CHAPTER 9

An Inventory of Non-tariff Measures in the Philippines

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This chapter describes the work that was undertaken to compile, validate, and register current non-tariff measures (NTMs) in the Philippines from official sources, with emphasis on ensuring the comprehensiveness and quality of the information. The inventoried NTMs are then analysed briefly and policy recommendations are provided to streamline the NTMs and develop measures that would meet the goals of protecting health and the environment.

1. Context

NTMs, being policy instruments, [33] are found within a country's legal and institutional framework. In the Philippines this framework consists of (i) the Constitution as the basic law of the land, (ii) Republic Acts or statutes passed by Congress that uphold the spirit of the Constitution, (iii) executive orders or rules of a general or permanent character executing statutory power that are issued by the President, and (iv) administrative issuances or rules and regulations that implement the law and are issued by government agencies authorised by law to make such rules and regulations, issue licences, and grant rights or privileges.

Organizationally, regulatory agencies have different levels indicating their degree of autonomy. This reflects their position in the executive branch of government: (i) the Bangko Sentral ng Pilipinas has the highest status as an independent central monetary authority; (ii) a department is the primary sectoral subdivision of the executive branch; (iii) 'attached' agencies have a lateral relationship with a department for policy and

[32] The assistance of Paul Feliciano is gratefully acknowledged.
[33] Defined broadly as measures taken to implement a guiding principle.

programme coordination in which the department has a representative in its governing body but cannot interfere with its internal operation, attached boards or commissions have regulatory and adjudicatory powers outside the control of the department; (iv) the next level are regulatory agencies whose personnel and financial resources are under the administrative supervision of a department; and (v) the last level are agencies under the control and supervision of a department, for example, line bureaus (Cariño, 2002).All official documents are written in English, being the country's official language aside from Filipino. Laws and executive orders take effect when published in the Official Gazette or newspapers of general circulation.

In the case of administrative issuances, the law – specifically Executive Order No. 292 or the Administrative Code of 1987—stipulates that copies should be submitted by the issuing agency to the University of the Philippines Law Center and that rules in force as of 1987 were to be filed within that year for their sanctions to be enforceable. Issuing agencies are also required to keep a permanent register of all rules and regulations and make this available to the public. The University of the Philippines Law Center then set up the Office of National Administrative Register for discharging its function. Issuances to be filed with the office include (i) statements of general applicability that implement or interpret a law; (ii) statements of general applicability that fix and describe the procedures in, or practice requirements of, an agency; (iii) amendments or repeal of any prior rule; (iv) regulations affecting private rights, privileges, occupation, or business; and (v) administrative disciplinary action and the governing rules of procedure.

NTMs are thus found mainly in administrative issuances and occasionally in executive orders. Administrative issuances are generally classified into circulars and orders. Circulars prescribe policies, rules, and regulations, and procedures that are applicable to entities outside the government and designed to provide the means for carrying out or supplementing provisions of the law. Orders are directed to particular offices, officials, or employees on specific matters. In practice, issuances take various other forms such as memoranda, memorandum orders, memorandum circulars, and regulations, and except for presidential issuances,[34] the definitions or differences between these forms are not described.

[34] EO 292, Book III, Chapter 2 on the ordinance powers of the President: (i) administrative orders are acts that relate to particular aspects of governmental operations in pursuit of his duties as administrative head, (ii)

2. Methodology

The inventory targeted particular NTM types[35] from the NTM classification scheme (UNCTAD, 2015), covering all relevant issuances as comprehensively as possible.

The approach was to (i) identify official sources of information, (ii) extract the relevant issuances, (iii) validate the information, (iv) identify the NTMs contained in the issuances and classify them, and (v) register the information in the template, including NTM type and products covered.

Official sources were of two kinds – official compilations of regulations or products, and individual issuing agencies. The former guided the search with the titles or topics of officially disclosed issuances, while the latter provided the text of these legal documents and other related issuances. Official compilations took the form of consolidated lists, repositories, or notifications to international bodies. These were used to draw up a base list of issuances.

The issuances in the base list were examined and also served as a springboard for further research. For instance, lists of regulated imports only consider the regulation that requires the import license rather than such prerequisites as the importer or the product registration. Given that the latter are usually provided in a separate issuance, these had to be sought.

Agency websites were scrutinised in parallel with the above compilations, not only to obtain digital copies of the legal documents, but also to identify other relevant issuances. The websites vary widely, from the highly informative and systematic to those with limited or less orderly information. Agency personnel were contacted directly to request, clarify, or confirm information. Other online sources were searched for copies of documents that could not be found in agency websites.

memorandum orders are acts on matters of administrative detail or of subordinate or temporary interest that only concern a particular office or officer, (iii) memorandum circulars are acts on matters relating to internal administration which are being brought to the attention of some offices, for information or compliance, and (iv) general or special orders are acts of the President in his capacity as Commander-in-Chief of the Armed Forces.

[35] These are type A (sanitary and phytosanitary measures or SPS), B (technical barriers to trade or TBT), C (pre-shipment inspection and other formalities), E (non-automatic licensing, quotas, prohibitions, and quantity-control measures other than SPS or TBT), F (price-control measures including additional taxes and charges), G (finance measures), H (measures affecting competition), I (trade-related investment measures), and P (export-related measures).

The Official Gazette (www.gov.ph) is the source of Republic Acts, executive orders, presidential decrees, and other issuances of the President.

3. Analysis of registered non-tariff measures

The results of the inventory are summarised in the following tables. Overall, 295 regulations were evaluated, yielding 854 NTMs.[36] Of these, 542 or about 63 percent were notified to the WTO, whether in the Trade Policy Review of 2012, the Import Licensing Agreement, Application of SPS Measures, or the TBT Agreement.

Table 9.1: Number of Regulations and Non-tariff Measures

Comprehensiveness Indicator	Number
Total number of coded regulations	295
Total number of coded NTMs	854
Total number of coded NTMs reported to the WTO	542
Total number of affected products (HS lines)	9,820
Proportion of products affected (%)	100%
Total issuing institutions	37

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

The Philippines uses the 8-digit ASEAN Harmonized Tariff Nomenclature (AHTN) of 2012,[37] which is based on the latest version of the Harmonized Commodity Description and Coding System (Harmonized System [HS]) of the World Customs Organization and its amendments. There are a total of 9,820 national HS lines and all are affected by NTMs.

TBTs are the most numerous NTMs, making up 42.1 percent of the total number, followed by SPS measures, which constitute 27.3 percent (Table 9.2). Export-related measures are the third major kind, reaching 17.1 percent of the total, although this is also because all NTMs affecting exports are combined in a single chapter.

[36]This excludes one anti-dumping measure that was added by the UNCTAD team to the inventory.
[37]The World Customs Organization has been undergoing a review of HS 2012 with the proposed changes are to be implemented in 2017, while the AHTN Task Force is aligning the AHTN 2012 with HS 2017 and amending it based on the review criteria. ASEAN member states are to implement the AHTN 2017 by 1 January 2017.

Table 9.2: Number of Non-tariff Measures by Type and Products Affected

Code	NTM Type	Number of NTMs	Total NTMs (%)
A	Sanitary and phytosanitary (SPS) measures	233	27.3
B	Technical barriers to trade (TBT)	360	42.1
C	Pre-shipment inspection and other formalities	24	2.8
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	56	6.5
F	Price control measures including additional taxes and charges	23	2.7
G	Finance measures	11	1.3
H	Measures affecting competition	1	0.1
I	Trade-related investment measures	–	
P	Export related measures	146	17.1
Total coded NTMs		854	100

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

The frequency of NTMs by subcategory is summarised in Table 9.3. Among the TBTs, conformity assessment measures are the most common, followed by prohibitions or restrictions, while the order is reversed for SPS measures although only slightly different in number. Labelling requirements are the next most frequent imposition under both types.

For export-related measures, licences/quotas/prohibitions make up the majority, followed by technical measures.

The NTMs were contained in the issuances of 37 government agencies, which are at the level of the department or attached bureau, authority, commission, administration, corporation, board, or institute. The top 10 agencies together issued 70 percent of all regulations, while the top five together made up about 50 percent of all issuances.

Three line bureaus under the Department of Agriculture – the Animal Industry, the Plant Industry, and Fisheries and Aquatic Resources – issued the largest number equivalent, respectively, with 14.8 percent, 12.6 percent, and 9.4 percent of the total. SPS measures were concentrated in these agencies, as well as at the Food and Drug Administration and the National Meat Inspection Service, given their mandates to protect human and animal health. In contrast, TBT measures were imposed by several different agencies. About nine NTMs were implemented simultaneously by multiple agencies.

Environment protection measures were the next major group of NTMs. These came mainly from the Environmental Management Bureau and the Fertilizer and Pesticides

Authority. Agencies heading the 'Others' list had similar objectives, namely the Forest Management Bureau and the Department of Environment and Natural Resources (whose issuances were implemented by the Biodiversity Management Bureau and the Philippine Ozone Desk).

Table 9.3: Frequency of Non-tariff Measures by Subcategory

Code	NTM Subcategory	Number
A1	Prohibitions/restrictions of imports for SPS reasons	88
A2	Tolerance limits for residues and restricted use of substances	1
A3	Labelling, marking, and packaging requirements	28
A4	Hygienic requirements	5
A5	Treatment for elimination of plant and animal pests and disease-causing organisms in the final product	14
A6	Other requirements on production or post-production processes	10
A8	Conformity assessment related to SPS	85
A9	SPS measures, n.e.s.	2
B1	Prohibitions/restrictions of imports for objectives set out in the TBT agreement	113
B2	Tolerance limits for residues and restricted use of substances	8
B3	Labelling, marking, and packaging requirements	56
B4	Production or post-production requirements	26
B6	Product identity requirement	4
B7	Product-quality or -performance requirement	16
B8	Conformity assessment related to TBT	137
C1	Pre-shipment inspection	2
C3	Requirement to pass through a specified port of customs	5
C4	Import-monitoring and surveillance requirements and other automatic licensing measures	3
C9	Other formalities, n.e.s.	14
E1	Non-automatic import-licensing procedures other than authorizations for SPS or TBT reasons	38
E2	Quotas	6
E3	Prohibitions other than for SPS and TBT reasons	9
E6	Tariff-rate quotas	3
F1	Administrative measures affecting customs value	1
F6	Additional taxes and charges levied in connection to services provided by the government	19
F7	Internal taxes and charges levied on imports	3
G1	Advance payment requirement	9
G4	Regulations concerning terms of payment for imports	1
G9	Finance measures, n.e.s.	1
H1	State-trading enterprises, for importing; other selective import channels	1
P1	Export-license, -quota, -prohibitions, and other quantitative restrictions	74
P2	State-trading enterprises, for exporting; other selective export channels	2
P4	Measures on re-export	2
P5	Export taxes and charges	1
P6	Export technical measures	57
P7	Export subsidies	3
P8	Export credits	1
P9	Export measures, n.e.s.	6
	Total	854

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

All AHTN product groups are subject to NTMs. In fact, multiple NTMs are imposed on the majority: 30 out of the 97 AHTN chapters, or about one-third, are covered by 11 to 20 NTM types, another one-fifth are affected by six to ten NTM types. However, about one-fifth are also unaffected by NTMs, mainly textiles and footwear.

A counterpart tabulation for the product groups defined in the template shows that 16 out of 27, or 73 percent, are subject to 10–22 NTM types. Only two are affected by one NTM type, while the rest have between two and nine NTM types imposed on them.

A summary of the specific subcategories of NTMs that affect each of the 97 AHTN chapters below shows the NTM chapters that apply to broad product groups. Both SPS and TBT measures are mainly imposed on animals and animal products, vegetable products and foodstuffs, as well as mineral products (because salt, which is heavily regulated, is classified here) and chemicals and allied products. The rest are subject to TBT measures.

Table 9.4: Non-tariff Measures Types affecting Each Product Group

HS Chapter	Product Group	NTM Chapter							
		A	B	C	E	F	G	H	P
01-05	Animal &animal products	**A1**, A3, A4, A5, **A6, A8**, A9	B1, B3, **B8**	C1, C3, C4, C9	**E1**, E3, E6		G1	H1	**P1, P6**
06-15	Vegetable products	**A1**, A3, A4, A5, A6, **A8**	**B1,** B2, B3, B4, B6, B7, **B8**	C1, C3, C4, C9	**E1**, E3, E6	F6, F7	G1, G4	H1	**P1, P6**
16-24	Foodstuffs	A1, A3, A6, **A8**	B1, B3, B4, B6, B7, **B8**	C1, C4, C9	E1, E2, E6	F1, F6, F7	G1	H1	P1, P6, P9
25-27	Mineral products	A1, A3, A5, A6, **A8**	**B1**, B2, B3, B4, B7, **B8**	C1, C9	**E1**	F6, F7	G1	H1	P1, P6
28-38	Chemicals &allied Industries	A1, A3, A5, A6, A8	**B1**, B2, **B3, B4,** B6, B7, **B8**	C1, C9	E1, E2, E3	F6, F7	G1, G9	H1	P4, P6, P9
39-40	Plastics/rubber	A3	B1, B3, B4, **B8**	C1, C9	**E1,** E3	F1	G1	H1	P1, P6
41-43	Raw hides, skins, leather, &furs		B3, B4, **B8**						P6
44-49	Wood &wood products	A1, **A8**	B1, B3, **B8**	C1, C3, C9	E1, E3	F6	G1, G9	H1	**P1,** P5, **P6**
50-63	Textiles	A8	B1, B3, B8	C4	E1, E3	F1		H1	P1, P6
64-67	Footwear/headgear		B1, B3, **B8**	C9			G1	H1	
68-71	Stone/glass	A8	**B1**, B3, B4, **B8**	C9	E1	F7	G1	H1	P1, P2, P6
72-83	Metals		B1, B2, B3, B4, **B8**	C9	**E1**	F1, F7	G1	H1	
84-85	Machinery/electrical	A8	**B1**, B2, B3, B4, B7, **B8**	C9	**E1,** E2	F6	G1	H1	P1, P6
86-89	Transportation	A8	**B1**, B3, B7, **B8**	C9	**E1,** E3	F1, F6, F7	G1	H1	P1, P6
90-97	Miscellaneous		B1, B2, B3, B4, **B8**	C9	E1, E2, E3		G1	H1	P1, **P6,** P9

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

4. Recommendations

4.1. Streamlining existing regulations

Since our inventory combines information from official compilations and individual agencies, it is comprehensive in terms of the NTM chapters that have been selected for this work. Validation by the agency as to (i) possible exclusions, (ii) validity period of all inclusions, and (iii) specification of products, would constitute further work to make it definitive. While no major changes in the legal and institutional framework are expected, an annual review of the inventory is recommended in order to include new or modifying regulations that are expected to be issued by agencies in the exercise of their authority.

The inventory work also revealed the following:

(a) Publicly available records are incomplete. The quarterly compilation of the official repository is also non-chronological; its website has been inaccessible in recent months. Regulations do not indicate their current validity, or specify the amended regulation. Other websites describe procedures and requirements but do not provide the text of the regulation.

(b) Automated systems of storage or cataloguing do not appear to exist. Older personnel depend on their own 'institutional' memory; newer ones do not have the same familiarity with the regulations. Physical copies of valid old issuances still have to be digitised; one agency's manual can only be obtained by purchase.

(c) The concept of 'regulated' products is usually understood in terms of certain types of NTMs only, such as quotas, prohibitions, or licensing whether or not for SPS and TBT reasons, as most are not familiar with all other NTMs. Hence, official lists are confined to these types. Yet those devoted to the same NTM did not contain the same information.

(d) There are measures that are not being enforced, possibly due to their impracticality or cost-ineffectiveness. The applicability of regulations to domestic products is not always specified.

(e) The language of a number of regulations is unclear or indirect and circuitous, and double or even multiple negatives are used.

(f) Regulations do not specify the AHTN codes of the products covered. Product descriptions are too broad or vague. Some are expressed in 'other than' terms, or affect products of certain characteristics only. New or unfamiliar products are not defined.

These indicate the need for an automated repository system that compiles all issuances from all agencies and provides full information and ease of search and retrieval. The system could incorporate an NTM classification functionality to enable the identification of the relevant provisions in the issuances. The Philippine National Trade Repository[38] as a single source of information on trade-related matters is an initiative in this direction.

Systematisation, however, has maximum positive impact only if the information that is being systematised is of high quality. For rigour and consistency of regulations, streamlining is thus imperative. Extraneous or redundant provisions and dead regulations must be removed, and only the most salient ones must be issued. They must be in plain language, with procedures or requirements reduced to the barest minimum, while providing all the information in precise terms. This will lower transactions costs and allow both the agency and the affected party to focus resources where they count most. Thus it encourages efficiency and compliance.

Streamlining can be done through process reengineering or business process analysis, a methodology described in the *Business Process Analysis Guide to Simplify Trade Procedures* (hereinafter, BPA Guide [UNNExT, UNESCAP, and UNECE, 2012]). Defined as 'the study of existing business processes within one or across several entities…. to understand attributes of the business processes and relationships among them', the BPA results serve as a baseline for trade facilitation measures such as the simplification of trade procedures or of documentary requirements and alignment with international standards, or the automation of trade transactions and electronic documents for single window systems.

[38]Launched in October 2015 as a web-based single source of comprehensive information on all trade-related matters (http://pntr.gov.ph/about.html), the Philippine National Trade Repository (PNTR) was established by the Ad Hoc Technical Working Group on PNTR under the Committee on ASEAN Economic Community, which is headed by the Bureau of Import Services of the Department of Trade and Industry, with 50 trade regulatory and trade policy agencies as members. It is a commitment under the ASEAN Trade in Goods Agreement that will be linked with the ASEAN Trade Repository, and complies with transparency obligations under the WTO Agreement on Trade Facilitation.

The BPA Guide describes three sequential phases:

> Phase I: Scope setting (Step 1. Define project scope. Step 2. Develop detailed work plan and secure resources)
> Phase II: Data collection and process documentation (Step 3. Acquire background information. Step 4. Conduct interviews and document captured data)
> Phase III: Process analysis and recommendations development (Step 5. Analyse the 'as-is' process. Step 6. Develop and propose recommendations)

The *Streamlining Non-tariff Measures: A Toolkit for Policy Makers* (Cadot et al., 2012) provides a detailed approach for an NTM review, describing the necessary institutional conditions, and following the same basic components of data collection and the assessment of their economic costs and benefits. The toolkit stresses that the streamlining process must be analytically sound and balance the reduction of trade costs against the preservation of public objectives.

An understanding of the business process requires research into related laws and regulations, forms, and documents, interviews with participants, and onsite observation. Interview questions [39] must be thorough and produce insights into the process. The sequence of activities required to complete a process is mapped with activity diagrams, process descriptions, and a time-procedure chart. These 'as-is' business process models are then verified.

A salient point that must be established by the agency at the start of a BPA is: what is the objective of the regulation? The inventory shows that aside from the usual mandates (protecting public health, the environment, consumer welfare, safety, national security, or morality, or developing particular industries), there are requirements to prove an entity's legitimacy, or provide information that would enable control over the goods or entity in case of non-compliance, or pay fees. These also have to be rationalised.

The business process is then analysed to identify bottlenecks and opportunities for improvement. Issues to be investigated are the efficiency (caused by redundancies or unnecessary requirements), effectiveness (amount of rework), reliability, transparency, and predictability of the business process (UNNExT, UNESCAP, and UNECE, 2012). Diagrams illustrating 'to be' processes may accompany the recommendations, which may include any of the following: resequencing of activities, elimination of redundant data, documents,

[39] The BPA Guide provides sample questions in Box 3B-16 on page 43.

procedures or activities that do not add value to meeting the measure's objectives, integrating business processes that have similar objectives, merging procedures to eliminate unnecessary documents, harmonising data requirements with international standards, and automation and information sharing. Also possible are the elimination of outdated laws and regulations, the privatisation of quality control-related tasks, modification or creation of laws and regulations, and the use of international best practice.

Tasks should not be fragmented, potential bottlenecks must be identified and avoided, and data that will not be used must not be collected. Timing must also be taken into account.

It is also essential for agencies to have a better understanding of NTM types. Aside from using simple language, regulations must state explicitly whether they are applicable to imports, exports, and/or domestic products. And they must specify the AHTN codes of the products affected. This pre-empts interpretation, misunderstanding, or discretionary decision-making.

Nine efficient regulation principles of the Organisation for Economic Co-operation and Development (OECD) are listed in the toolkit (Cadot et al., 2012) to guide the design and implementation of regulations: (i) transparency and openness, (ii) non-discrimination, (iii) avoidance of unnecessary trade restrictiveness, (iv) use of performance-based regulation, (v) use of regulatory impact assessment (RIA), [40] (vi) administrative simplification, (vii) use of internationally harmonised measures, (viii) ensuring the quality of conformity assessment procedures, and (ix) incorporation of competition principles in regulatory practice. UNCTAD (2013) also reiterates the importance of establishing a rule-making process that is transparent and complies with international obligations.

[40] RIA is best practice to improve the quality of regulations in terms of transparency, rigor, accountability, and consistency, and minimal unnecessary and excessive requirements. The methodology includes cost-benefit analysis and stakeholder consultation to ensure that the regulation is effective and efficient in achieving its policy objectives while minimizing negative effects. RIA was piloted at the Department of Finance, Department of Labor and Employment, and the Department of Tourism in 2012.

4.2. Developing NTMs to protect consumer health and the environment

The inventory showed that the bulk of NTMs are imposed to protect health and the environment. These are legitimate policy objectives. Under the WTO (www.wto.org), members can adopt NTMs for these objectives, as long as the measures comply with the rule that they do not create unnecessary obstacles to trade. In the exceptions to the rules, members may also justify General Agreement on Tariffs and Trade (GATT)-inconsistent measures if these are necessary to protect human, animal, or plant life or health (Article XX(b)), or relate to the conservation of exhaustible natural resources (Article XX(g)). To prevent the misuse of trade-related measures, it further stipulated that an environmental NTM may not be applied in an arbitrary or unjustifiably discriminatory manner between countries where the same conditions prevail, or as a disguised restriction on trade.

As Article XX allows the imposition of GATT-inconsistent measures for health or environment purposes, it also requires proof that a measure is intended to protect human, animal, or plant life or health, that the measure is necessary, or that it relates to the conservation of exhaustible natural resources.

Such trade measures must therefore still be developed carefully. Previous analysis of ASEAN NTMs recommended the following criteria for their rationalisation (i) transparent and non-discriminatory application, (ii) scientific basis, and (iii) the absence of an alternative that can achieve the objective in a less distortive manner (de Dios, 2004). These may serve as a guide for their development, complementing the OECD's efficient regulation principles.

Indeed, the SPS and TBT agreements prescribe a science-based approach for such NTMs and also encourage adherence to international standards. The agreements impose three types of discipline: (i) on the process of adoption of the measures and their implementation, under which NTMs should be designed and implemented in a non-discriminatory manner; (ii) on their proportionality to the objective sought, under which NTMs should be the least trade-restricting amongst the available instruments, also known as the efficiency criterion; and (iii) on their necessity, which implies that no other less trade-inhibiting instrument is appropriate. Regulations that are more stringent than international standards must be justified based on risk assessment (UNCTAD, 2013).

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CHAPTER 10

Non-tariff Measures in Singapore[41]

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1. Overview of Singapore

Most small countries lack the resources that larger countries often enjoy, or have minimal resources. Small size also translates into a small domestic market, which is usually inadequate to sustain continuous economic growth. In order to overcome these disadvantages, small countries need to develop a reliance on imports and exports. Singapore is such a country, with an open economy in which trade is an important growth engine that is valued at over three times its gross domestic product (GDP).

A heavy reliance on trade is not without risks. Singapore has an exposed and vulnerable economy, susceptible to external vagaries and shocks. However, small size can be turned into an advantage. Not only is a smaller country more nimble and easier to manage, the government is able to manage its scarce resources more efficiently. Singapore is often admired for its ability to marshal labour resources to attract foreign investments and has invested significantly in human capital. Furthermore, it has made full

[41] We would like to acknowledge and thank the support from the Government of Singapore, particularly the assistance and consultation received from the Ministry of Trade and Industry.

use of robust macroeconomic policies to shape the economy, with an emphasis on growth.

Singapore's emphasis on growth was borne out of necessity after the country suddenly found itself a sovereign nation after being ejected from Malaya in August 1965. This forced the government to cultivate a pro-growth environment. It has put in place pro-business policies such as strict adherence to the rule of law, strong government institutions, good infrastructure, competitive tax rates, and made significant investments in education, skills training, and research and development.

As a small nation that depends on imports of food, energy, and raw materials, Singapore embraces the multilateral trading system embodied by the World Trade Organization (WTO). A primary aim of Singapore's trade policy is to safeguard its trading interests by ensuring free and open international trading conditions. Beyond its support of the WTO, Singapore advocates continual improvements in trade efforts and strengthening of the multilateral trade system, in both regional and international contexts.

Since Singapore is so dependent on trade, the government has made exporting and importing as easy as possible. Singapore is generally a free port. Over 99 percent of all imports into Singapore are duty free. There are, however, high excise taxes on alcoholic and tobacco products, as well as motor vehicles and petroleum products. These are mostly levied for social or environmental reasons. All in all, Singapore maintains one of the most liberal trading systems in the world.

1.1. The legal framework of Singapore

Singapore is often regarded as a unique and successful case of the progress of an emerging market into a developed economy. Singapore's legal system reflects its cultural diversity and at times turbulent history. As a Commonwealth nation, the legal framework of Singapore has its roots in English law and practice. However, Singapore has made considerable amendments to its legal system in the past few decades in favour of local jurisprudence.

Approach to obtain legal comprehensiveness

A primary concern in NTM collection and classification is the legal comprehensiveness of the country's laws concerning NTMs. It is critical that an accurate, comprehensive, and accessible depository of the laws is readily available. While this depository may be available in printed or digital format or both, it is preferable to have a searchable online database.

Singapore's acts and regulations are accessible online through Singapore Statutes Online (SSO) (Attorney-General's Chambers, 2015). The SSO is the official website for Singapore's legislation and is managed by the Legislation Division of the Attorney-General's Chambers.

The SSO carries a comprehensive depository of the following:

a. acts of Parliament and subsidiary legislation;
b. revised editions of acts and subsidiary legislation;
c. bills tabled in Parliament;
d. act supplements, new subsidiary legislation, and amending subsidiary legislation published each year;
e. historical versions of legislation; and
f. PDF versions of legislation (where available).

The government makes every effort to keep the SSO updated. While it is not known how often the online depository is updated, the SSO is largely up to date.

Since the legal database comprises not just laws and regulations concerning NTMs, but also all the other legislation in effect in Singapore, it may be advisable to start collecting potential NTMs from government agencies identified to be involved in administering this legislation.

We identified a number of government agencies in Singapore that monitor laws and regulations potentially related to NTMs. These include the Agri-Food and Veterinary Authority (http://www.ava.gov.sg/legislation), the Ministry of Trade and Industry (http://www.mti.gov.sg), the Singapore Customs Authority (http://www.customs.gov.sg), and the Health Sciences Authority (http://www.hsa.gov.sg), to name a few. Combing

through the websites of these agencies yields acts and regulations that we believe are NTMs.

Another method was to examine Singapore's notifications to the WTO. It also led us to compare and assess the information provided in the WTO notifications with that provided in the United Nations Conference on Trade and Development (UNCTAD) collection. We searched the WTO website to find notified regulations relating to NTMs, specifically technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures (WTO, 2015a).

Therefore, the NTM collection exercise was carried out using a three-pronged approach:

a. Individual government ministries, departments, and agencies. Visit the websites of identified government bodies to collect regulations that are indicative of NTMs. For example, we visited the website of the Agri-Food and Veterinary Authority of Singapore and combed through their legislation page.
b. WTO notifications. Singapore regularly notifies and reports to the WTO any new regulations, as well as amendments.
c. Singapore Statutes Online. We complemented the first two search processes with an examination of Singapore's legislation to ensure full legal comprehensiveness.

1.2. WTO notification

Members of the WTO are obliged to file notifications to the Central Registry of Notifications to ensure transparency in the multilateral trading system. The Uruguay Round Ministerial Decision on Notification Procedures provided an annex on the indicative list of notifiable measures (WTO, 2015b).

As a WTO member, Singapore is obliged to notify any new trade-related measures, including TBT, SPS, import licensing, and quantitative restriction measures to the WTO pursuant to the notification obligations under the various WTO agreements. Not only does the notification system help to promote transparency, it also ensures that traders are informed of upcoming measures so that they adapt in good time, if necessary. Singapore generally notifies within 1–2 months before a measure is implemented.

For classification of goods, Singapore uses the Harmonized System (HS). While the international nomenclature developed by the World Customs Organization is set at the 6-digit level, the HS code of goods in Singapore is an 8-digit code (Singapore Customs,

2015a). This is because Singapore follows the Association of Southeast Asian Nations (ASEAN) Harmonised Tariff Nomenclature (AHTN) code – a harmonised 8-digit level code across ASEAN member countries.

2. Non-tariff measures in Singapore

2.1. Singapore's NTM regime

Singapore's NTM regime is non-organized in nature, as reflected in the decentralised administration and enforcement of NTMs by various government agencies, instead of a centralised government ministry such as the Ministry of Trade and Industry. As such, Singapore's approach to NTM implementation is not based on targeted trade protectionism but on the need to protect human health and the environment.

The top three institutional sources of NTMs are the Agri-food and Veterinary Agency (AVA), the Health Sciences Authority, and the National Environmental Agency. These organizations are responsible for ensuring food safety, national health and safety, and protecting the environment, respectively. This underscores the non-protectionist stance of Singapore's NTM regime.

This decentralised nature makes it difficult for companies to understand the various NTMs in place. Moreover, NTM rules may be subject to regular change due to new international standards. However, companies usually do not need to understand the whole spectrum of NTMs in order to operate. For example, a food manufacturing company only needs to know NTMs related to food production. Nonetheless, it could be beneficial for there to be a centralised depository of information related to Singapore's NTM regime.

2.2. Data collection

We collected 140 regulations within 58 acts and/or documents indicative of NTMs in the first phase. The second phase analysed the identified regulations to assess if they affected products, finding that 115 regulations (from 52 acts) indicative of NTMs had an impact. They were classified into 529 measures covering 9,558 products (Table 10.1).

Table 10.1: Non-tariff Measure Comprehensiveness in Singapore, 2015

	Comprehensiveness Indicator	Number
1	Total NTM-related regulations	115 regulations
2	Total NTM reported to the WTO	32 regulations
3	Total number of coded NTMs	529 measures
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products	9,558 products
	b. Share of the number of affected products to the number of total products (%)	100%
5	Total issuing institutions	25 institutions

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Singapore has adopted the HS-8 digit classification for its national tariff lines and has 9,558 tariff lines. All the products, which is 100 percent national tariff lines, in Singapore are affected by NTMs. Singapore has reported to the WTO at least 32 regulations covering about 500 NTMs. Our NTM classification yielded 529 coded NTMs, so it is fair to say almost all coded NTMs have been reported to the WTO.

We also analysed which government agencies issued the largest number of NTMs, revealing that there were 25 issuing bodies. Table 10.2 lists the top 10 bodies. The AVA issued the most NTMs, approximately 60 percent of the total measures. The majority of these NTMs are for products related to foods, feeds, animals, plants, and endangered species, as the AVA is the government agency responsible for food safety, animal welfare, and plant health. Given that NTMs are usually introduced in response to concerns over food safety, animal welfare, sanitary and phytosanitary matters, as well as the environment, and given that the AVA is responsible for most of these concerns, it has the greatest share of issued NTMs.

The Health Sciences Authority was a distant second at 7.1 percent, with NTMs covering product medicines and poisons. The National Environmental Agency was third, with 4.1 percent of total NTMs, covering motor vehicles, air-conditioners, clothes dryers, refrigerators, and televisions.

Table 10.2: Non-Tariff Measures by Issuing Institution, 2015

Number	Issuing Institution	Number of NTMs	Total Number of NTMs (%)
1	Agri-Food & Veterinary Authority	317	59.92
2	Health Science Authority	38	7.18
3	National Environment Agency	22	4.16
4	Ministry of Health	18	3.40
5	Singapore Customs Authority	18	3.40
6	National Environmental Agency, Ministry of the Environment	14	2.65
7	Singapore Armed Forces, Singapore Police Force	11	2.08
8	Singapore Civil Defence Force	10	1.89
9	Minister for Health	8	1.51
10	Ministry of Trade and Industry (MTI), International Enterprise Singapore Board, Customs Authority	8	1.51
11	The rest institutions	65	12.29
	Total	529	100.00

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Next we looked at the most common types of NTMs implemented. In Table 10.3, 59.2 percent of total NTMs were classified as technical barriers to trade (TBT), particularly for the products of food, animal, vegetables, medicines, textiles, and machinery. The second-largest share was attributed to sanitary and phytosanitary (SPS) measures, accounting for 24 percent, peculiarly imposed on almost all related to food products. Pre-shipment inspection and other formalities measure only accounted for 0.4 percent.

Table 10.3: Non-tariff Measures by Type in Singapore, 2015

Code	NTM by type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	127	24.0
B	Technical barriers to trade (TBT)	313	59.2
C	Pre-shipment inspection and other formalities	2	0.4
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than for SPS or TBT reasons	1	0.2
F	Price control measures including additional taxes and charges	36	6.8
P	Export-related measures	50	9.5
	Total coded NTMs	529	100.0

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Meanwhile, non-technical measures (E+F) imposed on imports coming into Singapore amounted to 7.0 percent of total NTMs, consisting of non-automatic licensing, quotas, prohibitions, and quantity control measures (0.2 percent) and price control measures including additional taxes and charges (6.8 percent). Measures affecting export activities amounted to 9.5 percent. Most export regulations related to NTMs are based on trade agreements between Singapore and other countries in international conventions, especially for medicines, plant products, psychotropic substances, chemical substances, tobacco, motor vehicles, live fish, medical devices, and rough diamonds.

There are 48 types of measures from the NTM classification in Singapore based on Multi Agency Support Team (MAST) February 2012 classification, consisting of SPS, TBT, pre-shipment inspection, and other formalities, non-automatic licensing, quotas, prohibitions, and quantity control measures other than for SPS or TBT reasons, price control measures including additional taxes and charges, and export-related measures.

Table 10.4 shows the top 10 types of NTMs most frequently imposed on imported and exported products. B6 measures relating to product identity requirement were the most often used, accounting for 17.6 percent of total NTMs imposed on imported products. Next was B31 (labelling requirement–TBT) at 13.8 percent, and then B14 (authorisation requirement for TBT reasons) at 8.1 percent.

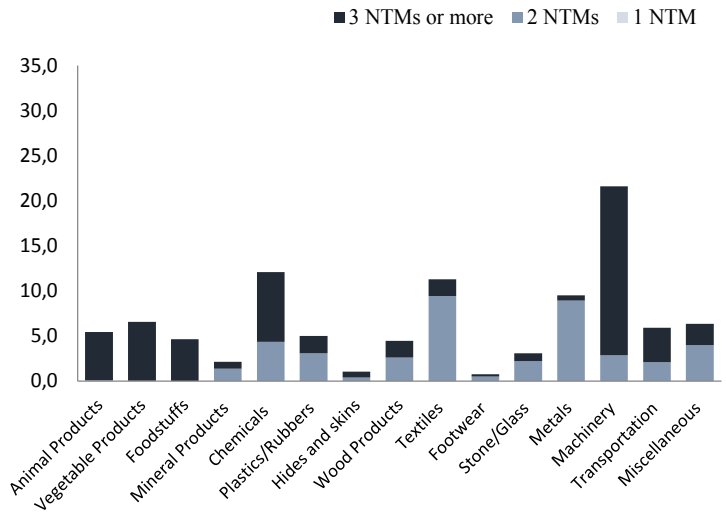
Table 10.4: Top 10 Most Frequent Non-tariff Measures in Singapore, 2015

Number	NTM by Type	Description	Number of NTMs	%
1	B6	Product identity requirement	93	17.6
2	B31	Labelling requirement for TBT reasons	73	13.8
3	B14	Authorisation requirement for TBT reasons	43	8.1
4	A31	Labelling requirement for SPS reasons	40	7.6
5	A22	Restricted use in foods and feeds	35	6.6
6	P13	Licensing or permit requirement for export	20	3.8
7	F69	Additional charges, n.e.s.	19	3.6
8	B42	TBT regulations on transport and storage	15	2.8
9	B82	Testing requirement related to TBT	15	2.8
10	F65	Import licence fee	12	2.3

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Export measures most widely used in Singapore were concerned with licensing or permit requirements for export, accounting for 3.8 percent of total NTMs. Additional charges and import licence fee measures were also numerous, accounting for 3.6 percent and 2.3 percent, respectively.

Figure 10.1: Percentage of Non-tariff Measures in Products to Total



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

As many as 57.9 percent of products were affected by three or more NTMs, while 42.1 percent were affected by two NTMs. Machinery/electrical products were the most affected by NTMs (more than three NTMs), at 18.8 percent, followed by chemical products (7.7 percent), and vegetable products (6.5 percent). Most of the products affected by two NTMs were textiles, at 9.4 percent. No products were affected by just one NTM.

Relationship with other countries

Given its dependency on trade to drive economic growth, Singapore places a high priority on building relationships with other countries, especially in trade. Singapore participates in various international conventions and trade agreements within ASEAN, and with non-ASEAN countries. Outcomes from international conventions, or bilateral agreements, are passed in Parliament as legislation. Subsequently, the relevant agencies in Singapore issue acts and regulations.

The list below shows some international conventions adhered to by Singapore:

a. Montreal Protocol (Ozone depleting products and substances): regulated in the Environmental Protection and Management Act (Chapter 94A)
b. Chemical Weapons Convention: regulated in the Chemical Weapons (Prohibition) Act (Chapter 37B)
c. Basel Convention: regulated in the Hazardous Waste (Control of Export, Import and Transit) Act (Chapter 122A)
d. Rotterdam Convention: regulated in the Poisons Act (Chapter 234) and the Control of Plants Act (Chapter 57A)
e. Kimberley Process (rough diamonds): regulated in the Regulation of Imports and Exports Act (Chapter 272A)
f. CITES Convention (endangered species): regulated in the Endangered Species (Import and Export) Act (Chapter 92A)
g. Several regulations that regulate trade activities between Singapore and other ASEAN members

3. Conclusions and development

Conclusions

In Singapore, the trend in NTM policy is consistent with regional countries, where the majority of NTMs are SPS or TBT in nature. In addition, the focus on food safety and environmental protection is also aligned with the region.

However, the number of NTMs is not indicative of whether a country has too many or too few regulations. The fact that ASEAN countries have a number of differences, including economic structure, export structure, legal framework, and policy effectiveness, means that they have a varying number of policies, including NTMs. NTMs do not and should not have a negative connotation as such, although some can be construed as trade barriers.

While Singapore's trade measures and policies are available on the Internet, they can be difficult to find. Singapore Customs has anticipated this difficulty in understanding how to conduct trade in Singapore and has an online guide on its website to facilitate the registration of trading for interested businesses (Singapore Customs, 2015b).

The reliance on trade to drive Singapore's economy means that the government tries to make it as easy as possible for businesses interested in trading with Singapore. Naturally, NTMs are an important trade issue for Singapore. If appropriate, Singapore strives to take guidance from best practices, as well as international standards, in the development of its NTMs.

In particular, Singapore has an interest in improving the transparency of NTMs in the region as well as globally, underscoring its commitment to the multilateral trading system. The Ministry of Trade and Industry has set up an NTM unit to allocate resources to the issues concerning NTMs. The main objective of the NTM unit, however, is to help Singaporean companies in addressing NTM issues overseas. This could stem from Singapore's commitment to being transparent about its trade policies, as evident from its timely WTO notifications and publicly assessable information on trade policies and related measures. Important feedback from Singapore firms is that NTMs and rules are more restrictive and non-transparent in other ASEAN countries. Therefore, this UNCTAD–ERIA project aims to have more open and transparent NTM rules in all ASEAN countries.

Furthermore, Singapore is always keen to achieve optimal regulation, avoiding both over- and under-regulating economic sectors. In 2005, the government formed the Smart Regulation Committee to improve the knowledge, awareness, and practice of regulations across the public service. The committee is tasked with finding ways to cut red tape and achieve optimal regulation.

Overall, we believe the UNCTAD–ERIA project on NTMs will contribute to the transparency of NTMs in ASEAN, which has been lacking. This is not due to a lack of effort but an absence of a central and neutral organization to collect and study the information. The involvement of other ASEAN governments in this project is testament to this. Nonetheless, we continue to encourage the establishment of more effective cooperation between the various research teams and their respective national governments.

The value-added of this UNCTAD–ERIA project is to provide a better understanding of Singapore's NTMs and a comparative understanding to provide insights on NTM policies of other ASEAN countries. We believe the project will be a catalyst for further discussion of NTMs in the ASEAN context. However, we must be careful not to make the purpose of such an endeavour an exercise in judging the legitimacy or effectiveness of NTMs imposed by ASEAN countries. Rather, it should be viewed as an opportunity to better understand the NTM regimes in the region. This will also support the broader goal of global NTM transparency, which will be the first step to addressing the impact of NTMs on free trade.

Development

While we do not have many specific recommendations for Singapore, the following would help to build on the momentum of this project.

a. Improve understanding of Singapore NTMs.
    - It is important for the government to disseminate widely and provide an effective information mechanism on NTM rules.

b. Comparative NTM study and analysis among ASEAN member states.
    - Important feedback from Singapore firms is that NTMs are more restrictive and non-transparent in other ASEAN countries. A comparative study of ASEAN member states may be useful to assess how the NTM regimes in each country differ. This may foster greater understanding and

cooperation between national governments to improve trade flows and contributes to the establishment of the ASEAN Economic Community.

c. Focus on studying NTMs by sectors or types of measures (for example, food labelling).
    - Food safety and environmental protection are two of the most common reasons identified for the existence of NTMs. Besides looking at NTMs at a national level, it may be useful to drill deeper into the sectoral level. Clearly, certain industries such as food manufacturing may be affected more by NTMs than others.

d. Improve understanding of regional NTMs by promoting more transparency.
    - The UNCTAD–ERIA project on NTMs is an initiative to promote more transparency and cooperation between ASEAN governments. This will sustain efforts to encourage and maintain this climate of improving transparency.

e. Build regulatory cooperation between governments and regulatory bodies.
    - Continuing efforts to build closer cooperation between governments and regulatory bodies are important in supporting the broader goal of achieving NTM transparency.

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CHAPTER 11

Non-tariff Measures in Thailand

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1. Introduction

This chapter is a descriptive analysis of Thailand's database of non-tariff measures (NTMs) constructed from January to August 2015 using the United Nations Conference on Trade and Development (UNCTAD) methodology and NTM classification (UNCTAD, 2012; 2014). This study evaluates the comprehensiveness of the database by computing proxies for incidence, depth, and intensity of Thailand's NTMs. NTMs imposed on some products (at the 8-digit tariff line level) are explained in detail to highlight their layers and complexity. Policy recommendations to streamline NTMs in Thailand are briefly mentioned. Section 2 describes an overview of Thailand's NTMs, and the comprehensiveness of the database, the types of NTMs imposed, and regulatory institutions. Section 3 discusses the incidence and depth of NTMs by product groups. Section 4 analyses the intensity of NTMs for each product group by computing the average number of NTMs per tariff line. Products with a particularly high average number of NTMs imposed are emphasized by explaining their NTMs in detail to give perspectives on the procedures with which importers and exporters have to comply. Section 5 provides brief policy recommendations and section 6 concludes.

2. Overview of Thailand's non-tariff measures

2.1. Comprehensiveness of database

Table 11.1 shows a total of 425 regulations coded out of approximately 600 regulations reviewed. Some regulations are not mandatory, unofficial, or revoked, which, according to UNCTAD methodology, are not included in the database. The study only

counts 250 non-tariff 'measures[42] in force' reported to the World Trade Organization (WTO); measures 'in initiation' to WTO are not included. The study has classified 1,630 NTMs using decentralized methods, that is, analysing regulations of each regulatory agency at the most disaggregate level starting from ministerial notices then moving up to a higher level of regulations such as royal decrees or acts as necessary. A thorough and careful interpretation of contents and/or clauses in each regulation results in 9,558 affected products (at the 8-digit national tariff line), which is 98.90 percent of all tariff lines (9,664 lines at 8-digit level). NTMs related to international conventions are also classified. The study found two D321 (volume-based agricultural special safeguard) measures in the Thailand–New Zealand and the Thailand–Australia free trade agreements. These are not reported in this database since NTMs related to foreign trade agreements are under consideration by related international organizations. A limited number of antidumping and safeguard measures are included in the database.[43] The other types of NTMs that have been incorporated in the database were those reported to WTO and verified to have been incorporated in the database. It was considered that reporting the number of 'regulatory agencies' at sub-ministry level is more meaningful than reporting the number of 'issuing institutions' at ministry level[44] as the latter is too aggregated to gain a perspective on how diverse NTM-related government agencies are. An accurate understanding of this issue is crucial in the design of a right institution to streamline NTMs.

[42] NTMs reported to WTO are 'measures' and not "regulations' although some reported measures provide links to regulation sources.
[43] Type D NTM measure, which includes antidumping, countervailing, and safeguard measures, is not the focus of this data collection. UNCTAD, however, has added some antidumping measures to our database based on antidumping measures reported to WTO.
[44] Most regulations classified in this chapter are ministerial notices and are issued by relevant ministries.

Table 11.1: Comprehensiveness of Database

	Comprehensiveness	Number
1	Total number of coded regulations	425
2	Total number of 'NTMs' reported to the WTO (measures in force)	250
3	Total number of coded NTMs	1,630
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products [a]	9,558
	b. Share of the number of affected products to the number of total products [b]	98.9%
5	Total number of 'regulatory agencies'	26

Note: a. A product may be affected by more than one measure, but the same HS-coded product will be counted as one product, e.g. HS 840731 has three NTMs; it will be counted as 'one affected product'.
b. Thailand adopts the HS-8 digit at national tariff lines and has 9,664 tariff lines.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2.2. Types of non-tariff measures

Table 11.2 shows sanitary and phytosanitary (SPS) measures comprising 48.3 percent and technical barriers to trade (TBT) comprising 34.9 percent of all NTMs. Price control measures (F type) contribute 1.3 percent of NTMs. A detailed inspection of F type measures indicates applicable 'special fees' on some sensitive agricultural products such as F69 (additional charges, n.e.s.) for import of maize and soybean meal. Other important F measures include, for example, F65 (import licence fee) for chemical weapons, F72 (excise tax for tobacco and liquor), F9 (price control measures, n.e.s.) for alcoholic beverages. A detailed inspection of E indicates a small number of measures with a clear objective of protecting domestic industry. These are measures aimed at some sensitive agricultural products. Examples include E113 (licensing linked to local production) for milk (to import milk, importers must buy domestic milk in ratio of 1:2 by weight), soybean/coconut/palm oil (to control effects on vegetable oil sold in domestic market), coconut/onion (in the event of shortage, import is allowed within certain limits in quantity and timeframe). Soybean oil, palm oil, and palm kernel are examples of products that could be imported only by the public warehouse organization. P measures (export-related

measures) affect almost all tariff lines but, depending on products, the measures range from simple inspection to registration to licensing/granting permit and to export prohibition.

Table 11.2: Types of Non-tariff Measures Imposed by Thailand

Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary measures (SPS)	788	48.34%
B	Technical barriers to trade (TBT)	562	34.48%
C	Pre-shipment inspection and other formalities	44	2.70%
D	Contingent trade protective measures	44	2.70%
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	40	2.45%
F	Price control measures including additional taxes and charges	21	1.29%
G	Finance measures		0.00%
H	Measures affecting competition	3	0.18%
I	Trade-related investment measures		
J	Distribution restrictions		
K	Restrictions on post-sales services		
L	Subsidies (excluding export subsidies under P7)		
M	Government procurement restrictions		
N	Intellectual property		
O	Rules of origin		
P	Export-related measures	128	7.85%
	Total coded NTMs	1,630	100.00%

Notes: J to O types of NTMs are not collected in this project.

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2.3. Regulatory institutions

Regulatory agencies for NTMs are diverse across different ministries, offices, and committees (Table 11.3). NTMs regulated by each ministry are, however, not fragmented at lower level agencies. They are usually grouped in one or two sub-ministry agencies. The Ministry of Public Health, for example, contributes 42.6 percent of total number of NTMs of which 35.1 percent comes from the Food and Drug Administration alone. The Ministry of Agriculture and Cooperatives imposes 29.1 percent NTMs of which the Department of Agriculture contributes 25.7 percent. The Ministry of Industry imposes 14.5 percent of which the Thai Industrial Standard Institute comprise 11.5 percent. The Ministry of Commerce contributes nine percent of which 6.9 percent comes from the Department of

Foreign Trade. This fact, however, should not obscure the imminent difficulty coordinating these sub-ministry units to streamline NTMs.

Table 11.3: Non-tariff Measures by Regulatory Institution

Number		Regulatory Institution	Number of NTMs	Total Number of NTMs (%)
1		Ministry of Public Health	697	42.6
	1.1	General	116	7.1
	1.2	Food and Drug Administration	574	35.1
	1.3	Bureau of Pathogens and Animal Toxins Act	7	0.4
2		Ministry of Agriculture and Cooperatives	476	29.1
	2.1	General	37	2.3
	2.2	Department of Agriculture	420	25.7
	2.3	Department of Fisheries	18	1.1
	2.4	Department of Livestock Development	1	0.1
3		Ministry of Industry	238	14.5
	3.1	General	2	0.1
	3.2	The Thai Industrial Standard Institute	189	11.5
	3.3	Department of Industrial Works	31	1.9
	3.4	The Office of the Cane and Sugar Board	12	0.7
	3.5	Department of Primary Industries and Mines	4	0.2
4		Ministry of Commerce	147	9.0
	4.1	General	3	0.2
	4.2	Department of Foreign Trade	113	6.9
	4.3	Office of the Central Commission on Prices of Goods and Services	26	1.6
	4.4	Department of Internal Trade	3	0.2
	4.5	Central Bureau of Weights and Measures	1	0.1
	4.6	Committee for Grain Trade Act	1	0.1
5		Ministry of Finance	15	0.9
	5.1	Excise Department	15	0.9
6		Ministry of Natural Resources and Environment	10	0.6
	6.1	General	4	0.2
	6.2	Department of National Parks, Wildlife, and Plant	6	0.4
7		Office of The National Broadcasting and Telecommunications Commission	7	0.4
8		Prime Minister's Office	3	0.2
	8.1	The Consumer Protection Board	3	0.2
9		Ministry of Defense	1	0.1
	9.1	Defense Industry Department	1	0.1
10		WTO-related committees	43	2.6
	10.1	General	37	2.3
	10.2	Committee on Antidumping Practices, Subsidies, and Countervailing Measures	3	0.2
	10.3	Committee on Safeguard Measures	3	0.2
		Total	1,637	100.0%

Notes: NTMs under the regulatory institution 'General' means are those issued by ministries but with no lower level units indicated as responsible such as departments and bureaus. They are issued usually by the secretariat of the relevant ministry. The 1,637 NTMs exceed what was previously reported (1,630) because seven of the measures reported here are regulated by both the Department of Agriculture and the Department of Industrial Works.
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

3. Incidence and depth of non-tariff measures

The incidence of NTMs is defined as a proportion of tariff lines in each product group (to be defined later) affected by at least one NTM. The depth of NTMs is defined as a proportion of tariff lines in each product group affected by three or more NTMs. Table 11.4 shows the division of products into groups according to their HS code at the 2-digit level.

Table 11.4: Product Groups Classified by Harmonized System Code (2-digit Level)

HS Code	Product Group
01-05	Animal and animal products
06-15	Vegetable products
16-24	Foodstuffs
25-27	Mineral products
28-38	Chemicals and allied industries
39-40	Plastics/rubbers
41-43	Raw hides, skins, leather, and furs
44-49	Wood and wood products
50-63	Textiles
64-67	Footwear/headgear
68-71	Stone/glass
72-83	Metals
84-85	Machinery/electrical
86-89	Transportation
90-99	Miscellaneous

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

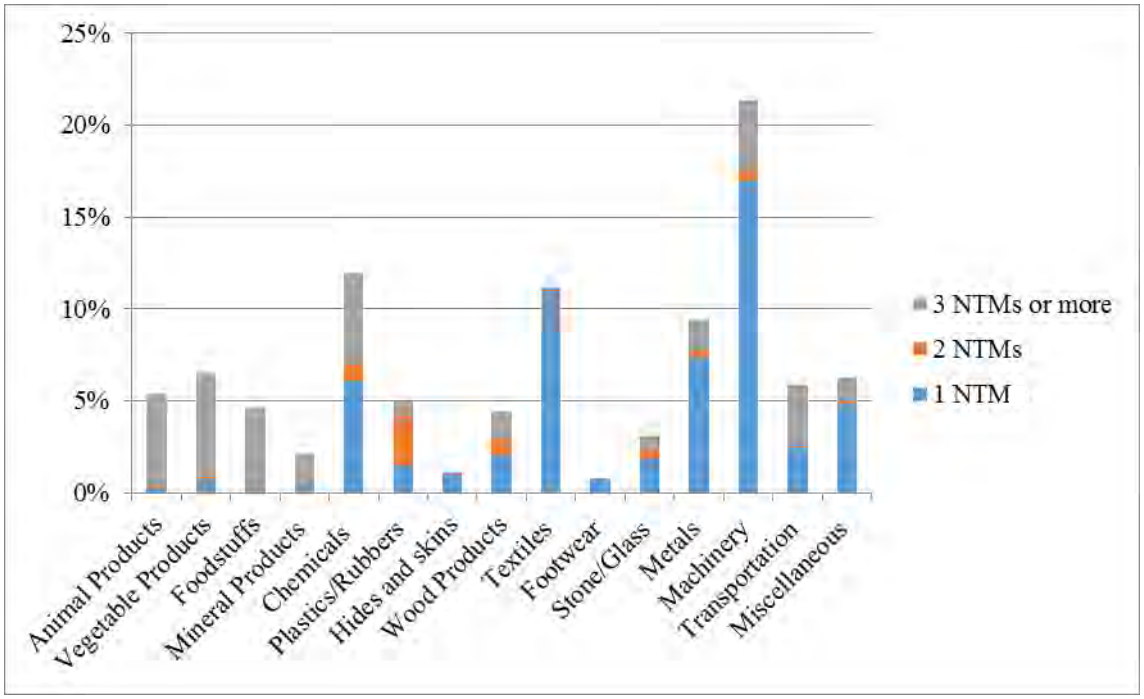
Figure 11.1 shows machinery products comprise 21.4 percent of tariff lines affected by one or more NTMs. Seventeen percent of these products has only one NTM. Textiles and metals products comprise 11.2 percent and 9.4 percent, respectively, with the majority of products for each group having one NTM. Chemical products comprise 12 percent with approximately equal share of products affected by one and three or more NTMs. Not surprisingly, animal products, vegetables products, and foodstuff have the majority of their products affected by three or more NTMs. The 'depth' of NTMs for these product groups is anticipated due to the complexity and details of SPS and TBT measures.

A major drawback of an analysis based on Figure 11.1 is that the percentage is computed as a percentage of total number of tariff lines (9,664 lines). A more interesting

representation would use the number of tariff lines affected by one or more NTMs in each product group divided by the number of tariff lines in each product group (Figure 11.2).

All tariff lines in all product groups except vegetable products and foodstuffs are affected by at least one NTM. This is a striking result compared to previous literature on Thailand's NTMs. Cadot et al. (2015), using the ASEAN Secretariat 2009 database, found the highest incidence of NTMs in textiles where approximately 23 percent of tariff lines are affected by one or more NTMs (Figure 11.3). The major reason for this discrepancy is the different methods of NTM collection. The ASEAN Secretariat database is based on reports by government officials whereas this database is collected by first-hand analysis of actual regulations and done by independent researchers. The methodologies in classifying NTMs of the two databases may also differ.

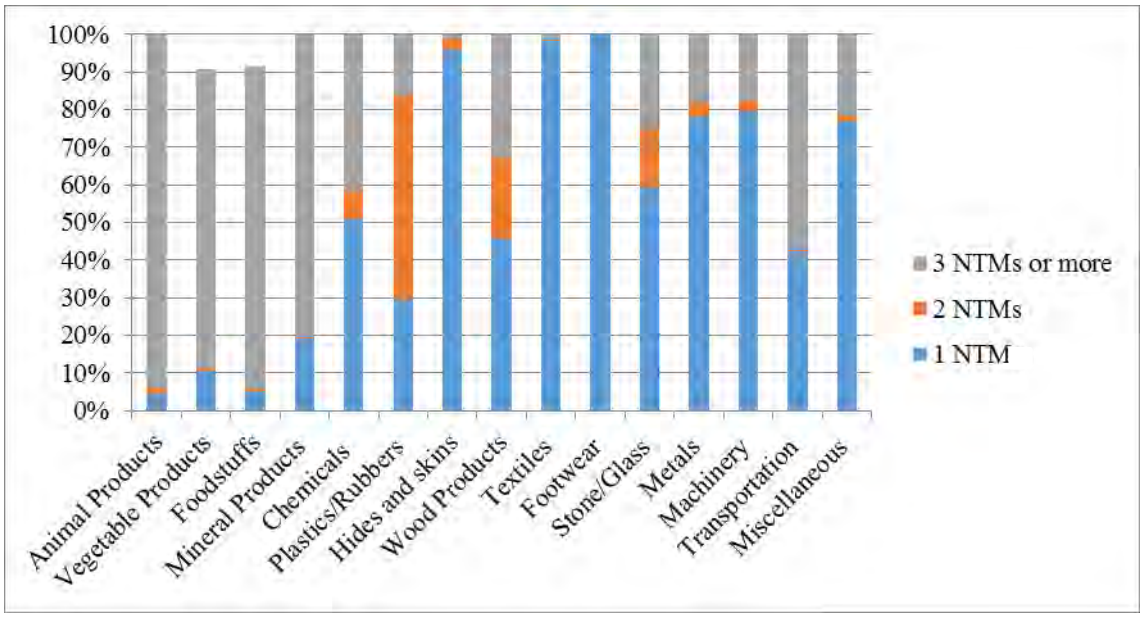
Figure 11.1: Incidence and Depth of Non-tariff Measures (as Percentage of 9,664 Tariff Lines)



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

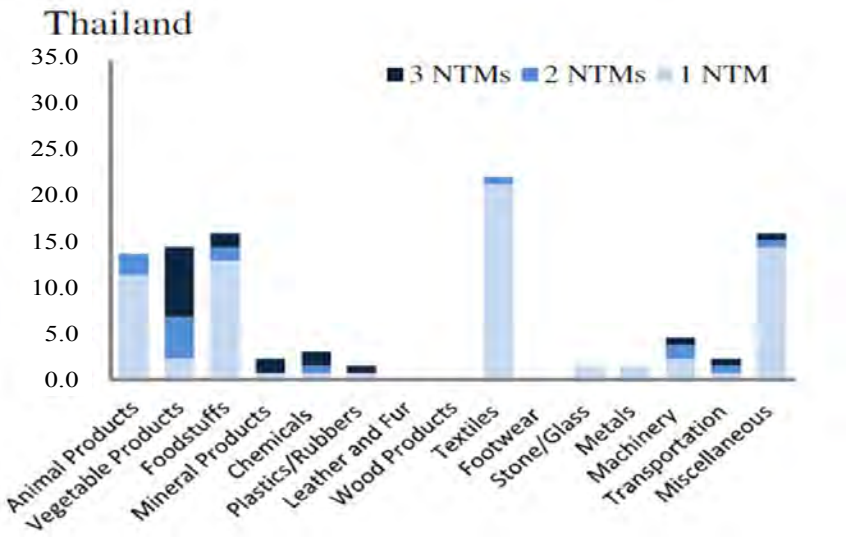
According to this new database, it can be concluded that Thailand has 100 percent incidence of NTMs in all product groups except vegetable products and foodstuffs with 90.8 percent and 91.3 percent, respectively. Figure 11.2 highlights the depth of NTMs for animal products, vegetable products, foodstuffs, and mineral products where the majority of tariff lines have three or more NTMs.

Figure 11.2: Incidence and Depth of Non-tariff Measures (as Percentage of the Number of Tariff Lines in Each Product Group)



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Figure 11.3: Incidence and Depth of Non-tariff Measures: Percentage of Tariff Lines Affecting One or More Non-tariff Measure (Previous Study)

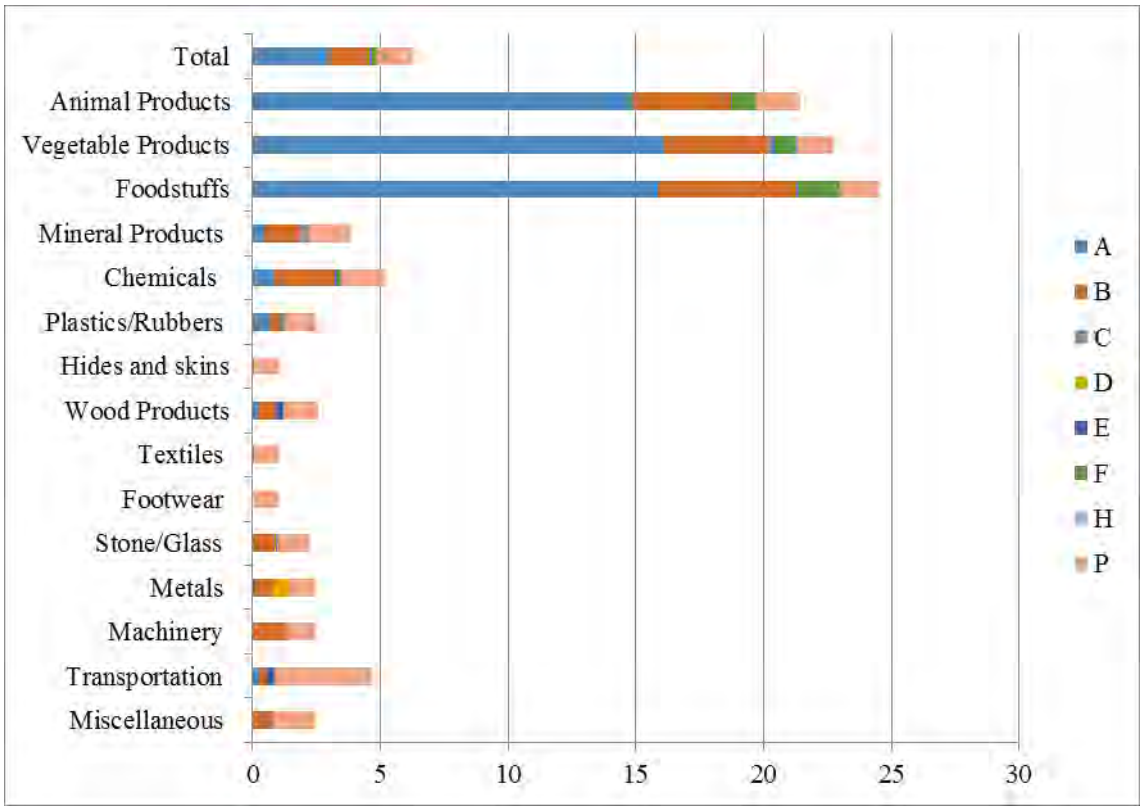


Source: Cadot et al. (2015).

4. Intensity of non-tariff measures

The intensity of NTMs is defined as the average number of NTMs per tariff line for each product group. The average number of measures for each tariff line is further classified into average number of measures of A, B, C, D, E, F, H, and P types. The overall average number of NTMs per tariff line for Thailand is 6.4 (Figure 11.4). Animal products, vegetable products, and foodstuffs have the highest intensity of NTMs, where the average numbers of NTMs per tariff line is 21.4, 22.7, and 24.6, respectively. Most measures for these product groups fall under SPS and TBT categories. Mineral products, chemicals, and transportation products have, on average, from three to five measures per tariff line with B and P types having the most. Other product groups have less than three average NTMs per tariff line. Figure 11.4 presents a very different result from previous work on Thailand's NTMs. Intaravitak et al. (2013), also using the ASEAN Secretariat 2009 database, found the average number of NTMs to be less than one per tariff line for all product groups.

Figure 11.4: Intensity of Non-tariff Measures: Average Number of Non-tariff Measures per Tariff Line for Each Product Group



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

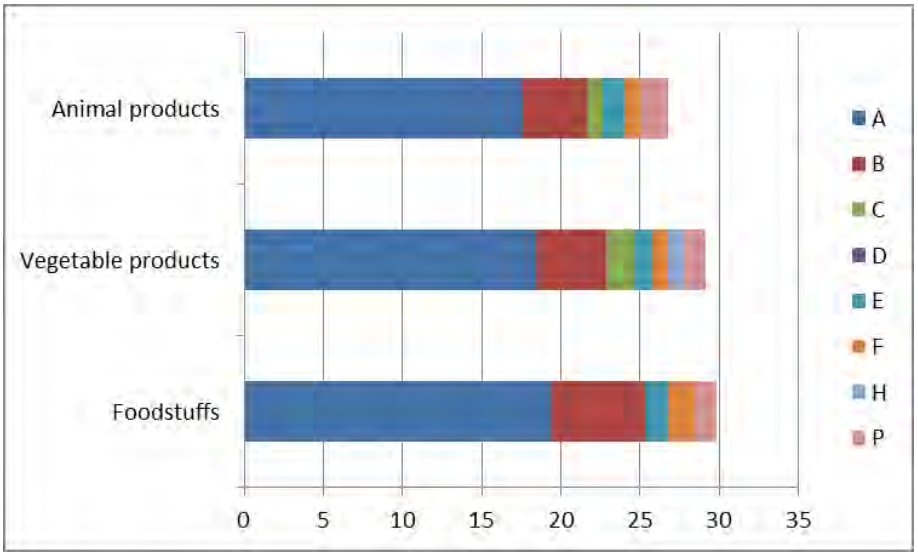
The analysis based on Figure 11.4 may underestimate the severity of NTMs. Each NTM type tends to be particularly associated with some types of products. For example, SPS measures in general are applicable to vegetable/animal products and foodstuffs. Many TBT measures concerning product performance/quality are particularly applicable to metal and machinery products. For this reason, the study has computed for each product group, an average number of measures of each NTM type among those tariff lines affected by that particular NTM type (Figure 11.5).

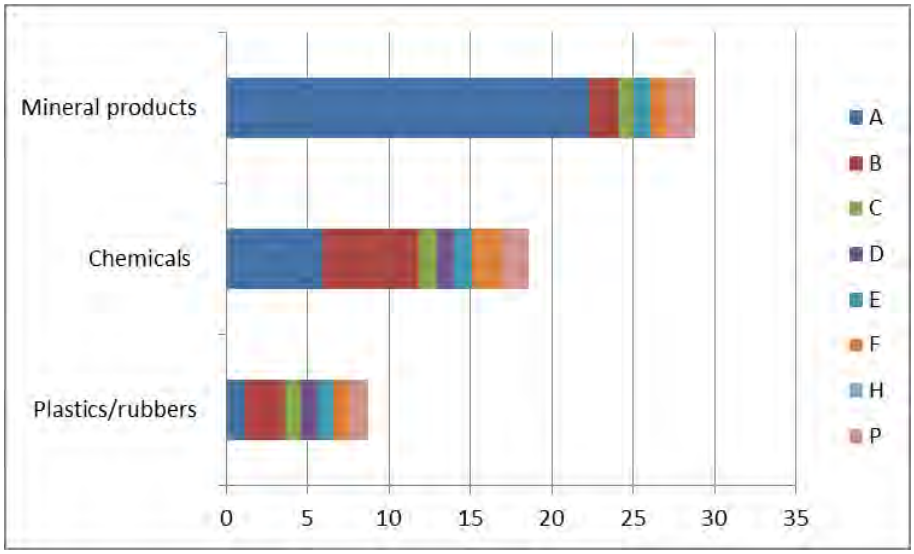
Within the animal products group, certain tariff lines are affected by type A NTMs. The average number of type A NTMs imposed on these products is 17.6. Using the same logic within animal products group, certain tariff lines are affected by type B NTMs. The average number of type B NTMs imposed on these products is 4.1.

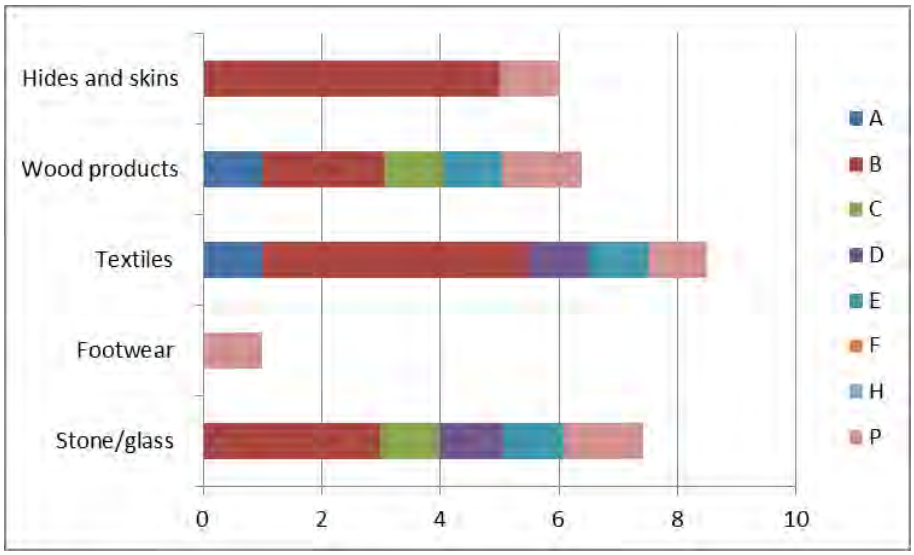
Using this method to compute the intensity (or severity) of NTMs is more precise than that used in Figure 11.4. As an example, according to Figure 11.4, mineral products have, on average, 3.9 NTMs per tariff line with insignificant proportion of type A NTMs.

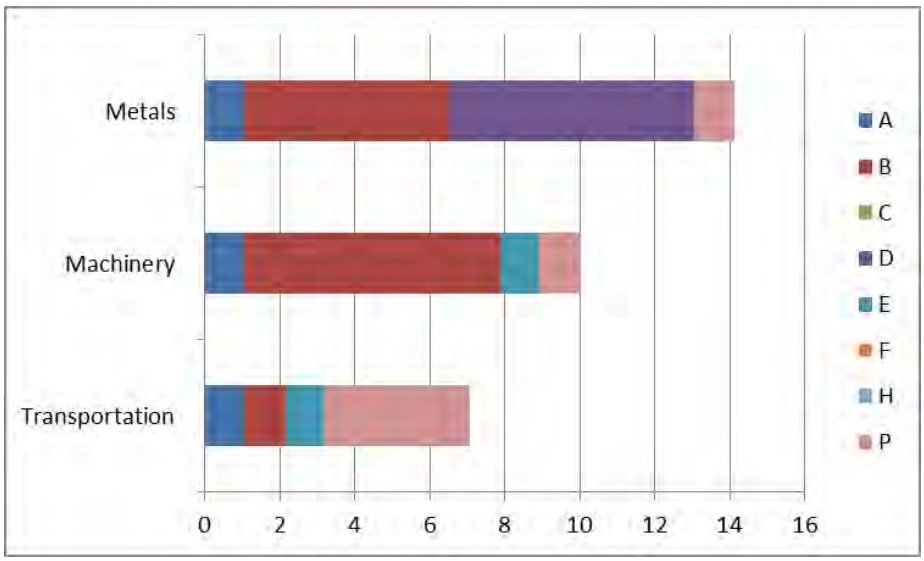
Figure 11.5, on the other hand, suggests that for tariff lines in mineral products group affected by type A NTMs, the average number of type A measures is 22.3 per tariff line. For example, HS 25010010 (salt, including table salt and denatured salt; and pure sodium chloride) contains type A measures ranging from tolerance limit of contaminations to hygienic practice during production to packing, storage, and labelling requirements. Similarly, it is striking to note that the average number of type A NTMs faced by tariff lines affected by type A NTMs in animal products, vegetable products, and foodstuffs groups are 17.6, 18.5, and 19.3, respectively. For textile products, tariff lines affected by type B NTMs have 4.5 average measures, mostly to ensure that imported fibre waste is properly reported and managed. Metal products facing type B measures (product quality or performance requirements) have to comply with 5.5 measures on average. Metal products facing type D measures have to comply with 6.5 measures on average. Most are AD measures. Similarly, machinery products facing type B measures (product quality or performance requirements) have to comply with 6.9 measures on average.

Figure 11.5: Intensity of Non-tariff Measures: Average Number of Measures of each NTM Type Among Tariff Lines Affected by that Particular NTM Type









Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

5. Policy recommendations on streamlining non-tariff measures

The focus of this chapter is a descriptive analysis of Thailand's NTM database and not so much on designing policies to streamline NTMs. This section briefly discusses ideas about how to address NTM issues learned during NTM data collection, generally concurring with the methods proposed by the World Bank toolkit on streamlining NTMs (Cadot et al., 2012). This approach, however, should be modified to suit local context in each country. In particular, this study proposes the following steps to streamline NTMs:

- **NTM collection**. Establish a one-stop NTM service centre where importers and exporters can report and be notified of NTMs in a timely manner.
- **Review of NTMs**. The cost-benefit of an NTM should be carefully analysed. Equally important is understanding who benefits and who bears the cost. Sometimes, NTMs represent economic rents for some third parties, causing unnecessary inefficiency.
- **Streamlining NTMs.** The following are proposed:
  - Establish a strong independent oversight body.
  - Focus on regional mutual recognition agreements as an intermediate, short-to-medium term solution.
  - Encourage adoption of international standards in place of national and/or regional standards.

6. Conclusion

This study constructed a relatively comprehensive Thailand database of NTMs by analysing official regulations using UNCTAD methodology and have classified 1,630 NTMs from 425 regulations. These NTMs affect 9,558 products at 8-digit national tariff lines, which is 98.90 percent of all tariff lines (9,664 lines at 8-digit level). Of these NTMs, 83 percent are SPS and TBT measures that affect 55 percent of tariff lines. The study found limited use of price control measures (F type) although it affects a relatively large number of tariff lines. Type E measures, especially those with a clear objective of protecting domestic industry such as E113 (licensing linked with local production), are barely used. This study also found limited use of the H11 (state-trading enterprise, for importing) measure. P measures (export-related measures) affect almost all tariff lines but, depending on products, the measures range from simple inspection to registration to licensing/permit and to export prohibition. NTM-related regulatory institutions are diverse as they are from different ministries. However, NTMs tend to 'group together' in some of these sub-ministry

agencies. The database indicates that Thailand has 100 percent incidence of NTMs in all product groups except vegetable products with a 90.8 percent incidence and foodstuffs with a 91.3 percent incidence. Animal products, vegetable products, foodstuffs, and mineral products feature more 'depth' of NTMs since the majority of tariff lines in these product groups face three or more NTMs. For each product group, this study devised a new method to proxy the intensity (or severity) of NTMs by computing an average number of measures of each NTM type among tariff lines affected by a particular NTM type. The study found significant NTM severity for some NTM types in some products. For example, for those tariff lines in the mineral products group affected by type A NTM, the average number of type A measures is 22.3 per tariff line. Similarly, the average number of type A NTMs faced by tariff lines affected by type A NTMs in animal products is 17.6; vegetable products 18.5, and foodstuffs 19.3.

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CHAPTER 12

Non-tariff Measures in Viet Nam[45]

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1. Introduction

Viet Nam has embarked on comprehensive reforms since 1986, focusing on three pillars: (i) macroeconomic stabilization, (ii) market-oriented reforms, and (iii) pro-active economic integration. Since 2000, the economic integration process has accelerated.

Alongside increasing integration, Viet Nam has also phased out tariff barriers to trade, with import tariffs reduced under most integration arrangements. Under the World Trade Organization (WTO), average bound tariffs dropped sharply, from 17.4 percent in 2005 to 14.2 percent in 2007 and are set to remain stable at 13.4 percent until 2023. This is also the highest level of bound tariff rates for Viet Nam. Tariffs fell most sharply under the Association of Southeast Asian Nations (ASEAN) Free Trade Area (AFTA) framework, with the bound rate decreasing from 6.7 percent in 2005 to below 2.8 percent in 2007 and set to fall to 2.5 percent in 2023. Reduction of bound tariff rates was more gradual under the ASEAN–China FTA (ACFTA), the ASEAN–Korea FTA (AKFTA), and the ASEAN–Japan Comprehensive Economic Partnership (AJCEP), though the pace of reduction has been faster since 2015.

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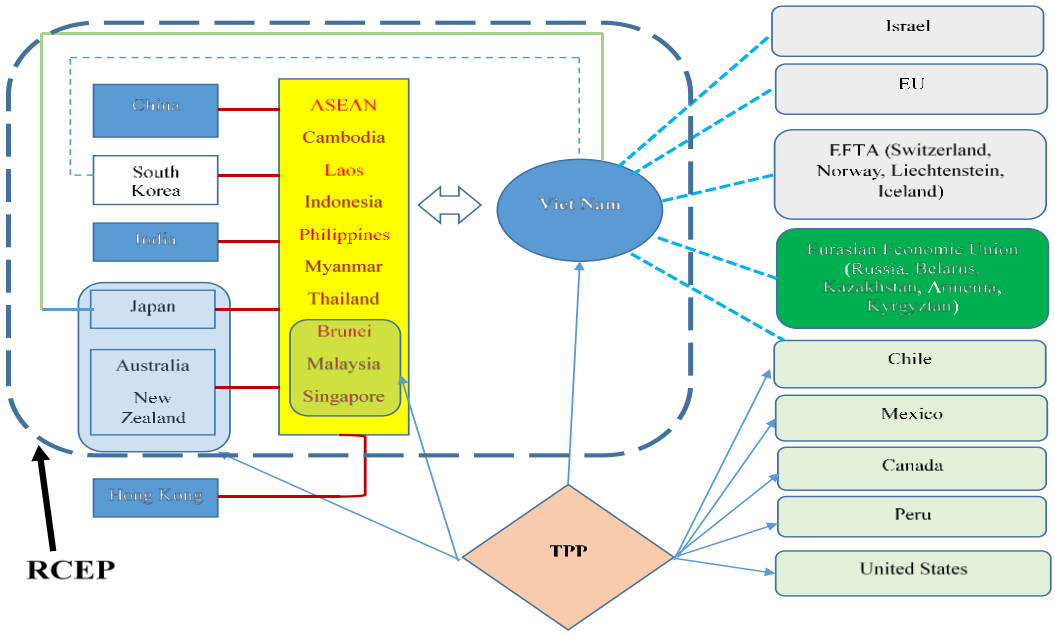
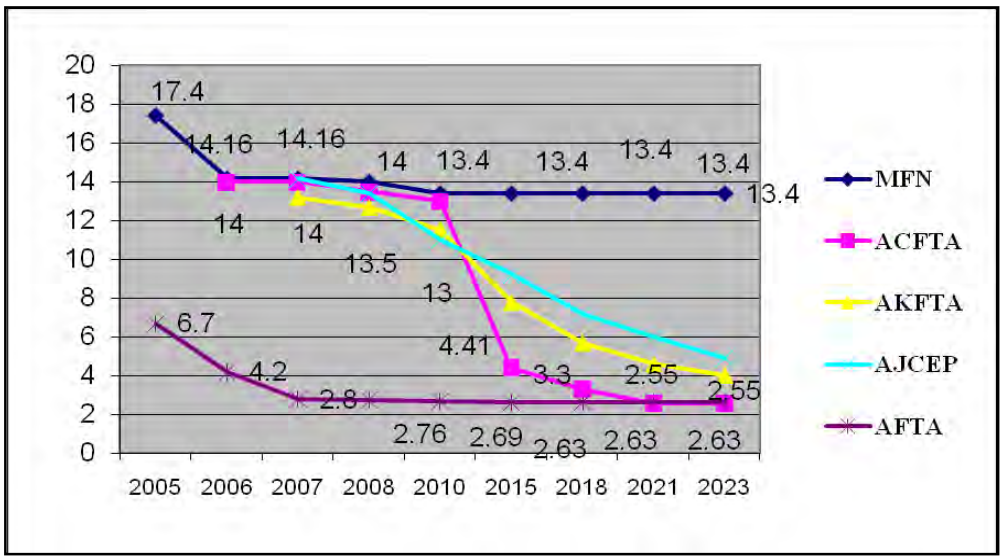
Figure 12.1: Signed and Pending Free Trade Agreements of Viet Nam



Note: ASEAN = Association of Southeast Asian Nations; EFTA = European Free Trade Association; EU = European Union; FTA = free trade agreement; RCEP = Regional Comprehensive Economic Partnership; TPP = Trans-Pacific Partnership.
Source: Central Institute for Economic Management (2015).

Figure 12.2: Tariff Reductions under Some Free Trade Agreements, Viet Nam



Note: FTA = free trade agreement; MFN = most-favoured-nation tariff (for all WTO members); ACFTA = ASEAN–China FTA; AKFTA = ASEAN–Korea FTA; AJCEP = ASEAN–Japan Comprehensive Economic Partnership; AFTA = ASEAN Free Trade Area.
Source: Truong et al. (2011).

As tariffs are gradually phased out, non-tariff measures are attracting more and more attention, alongside other issues such as trade facilitation and reducing unnecessary burdens on business. This is because non-tariff measures (NTMs), given their incorporation into various regulations and policies that have implication for flows of goods both at-the-border and behind-the-border, may still restrict trade flows into Viet Nam from other countries. In turn, consumers may not be able to consume their preferred products from overseas and importers may face higher compliance costs when importing intermediate products for further processing in Viet Nam. Conversely, the presence of NTMs may also serve specific purposes that can be justified, such as protection of domestic consumers' health and local biodiversity.

NTMs are defined as 'policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both' (UNCTAD, 2012). The definition of NTMs is thus quite broad. Unlike NTMs, non-tariff barriers (NTBs) refer to restrictions that '…result from prohibitions, conditions, or specific market requirements that make importation or exportation of products difficult and/or costly' (Nguyen and Dang, 2014). NTBs arise from different measures taken by governments and authorities in the form of government laws, regulations, policies, conditions, restrictions or specific requirements, and private sector business practices, or prohibitions that protect the domestic industries from foreign competition. Thus, NTBs constitute a subset of NTMs and the *a priori* distinction of NTBs from NTMs should be avoided.

This chapter revisits NTMs in Viet Nam, focusing exclusively on the types of NTMs that originate from Vietnamese regulations and policies. Such NTMs may have implications for imports of goods into Viet Nam, as well as for exports of goods by Vietnamese exporters. Hence, we ignore the possible NTMs in overseas markets that Vietnamese exporters may face when selling their products. As we focus only on the types of NTMs that are in force, we leave aside the possible trade effects of such NTMs.

Being an economy in transition from a central planning regime to a market mechanism during the past three decades, Viet Nam has only had relatively limited experience with instruments of trade and trade-related policies. Most of this experience can be summarized with the use of three types of instruments: (i) trading rights, (ii) non-tariff barriers, and (iii) trade-related investment measures. More recently it has also

included prohibitions and/or restrictions of trade of selected products due to Viet Nam's participation in various international conventions.

The remainder of this chapter is structured as follows. Section 2 summarizes the key aspects of NTMs in Viet Nam. Section 3 draws out some key lessons from identifying NTMs in Viet Nam. Finally, section 4 makes some recommendations related to identifying and stocktaking NTMs in Viet Nam.

2. Key findings of non-tariff measures in Viet Nam

2.1. Classification of identified non-tariff measures by type

Table 12.1 describes the comprehensiveness of the NTM database for Viet Nam. Accordingly, all products at the 8-digit HS level are subject to some NTMs. The NTMs were sourced from 121 regulations, and just over one-third were actually in the WTO database.

Table 12.1: Comprehensiveness of Database

	Comprehensiveness	Number
1	Total number of coded regulations	121
2	Total number of NTMs reported to the WTO	142
3	Total number of coded NTMs	379
4	Total affected products (HS lines, national tariff lines)	
	a. Total number of affected products [a]	9,558
	b. Share of the number of affected products to the number of total products [b]	100%
5	Total number of 'regulatory agencies'	15

HS = Harmonized System; NTM = non-tariff measure; WTO = World Trade Organization.

Note: a. A product may be affected by more than one measure, but the same HS-coded product will be counted as one product, e.g., HS 840731 has three NTMs; it will be counted as 'one affected product'.

b. Viet Nam adopts the HS-8 digit at national tariff lines and has 9558 tariff lines.

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Table 12.2 presents the documented NTMs by type. Viet Nam has completed phasing out all trade-related investment measures to attract foreign investment. Accordingly, there is no documented NTM under Chapter I – Trade-related investment measures (as per the UNCTAD classification). The NTMs under Chapters K to O are excluded from the analysis, so they are not documented in Table 12.2.

As can be seen, sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT) constitute the most popular NTMs in Viet Nam. Each of these codes accounted for almost 37.5 percent of NTMs that were identified in the process. Altogether, SPS and TBT measures already make up three quarters of NTMs in Viet Nam; export-related measures rank third with 63 measures (or 16.6 percent).

Table 12.2: Summary of Non-tariff Measures by Type

Code	NTM by Type	Number of NTMs	%
A	Sanitary and phytosanitary (SPS) measures	142	37.47
B	Technical barriers to trade (TBT)	142	37.47
C	Pre-shipment inspection and other formalities	5	1.32
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than SPS or TBT reasons	9	2.37
F	Price control measures including additional taxes and charges	7	1.85
G	Finance measures	2	0.53
H	Measures affecting competition	8	2.11
J	Distribution restrictions	1	0.26
P	Export-related measures	63	16.62
Total		**379**	**100.00**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

SPS measures account for 37.5 per cent of the coded NTMs. The most popular ones are authorization, testing, and certification. Once authorized, the relevant ministry will issue a document listing the products and/or breeds authorized for import and use in Viet Nam, which makes it easy to misunderstand that the NTM works under a positive-list approach. The reviews also show that there are frequent changes in the SPS regulations of the responsible ministries (in fact, some regulations received critical feedback from business and had to be amended/delayed, such as the ice-glazing ratio on fishery products).

2.2. Classification of non-tariff measures by issuing agency

Table 12.3 tabulates the number and share of NTMs by issuing agency.

Table 12.3: Summary of Non-tariff Measures by Issuing Agency

Issuing agency	Number of NTMs	%
Ministry of Industry and Trade	32	8.44
Ministry of Transport	8	2.11
Ministry of Science and Technology	4	1.06
Ministry of Agriculture and Rural Development	130	34.20
Ministry of Finance	16	4.22
Ministry of Natural Resources and Environment	2	0.53
Ministry of Information and Communication	4	1.06
Ministry of Construction	6	1.58
Ministry of Health	63	16.62
Government	70	18.47
National Assembly	25	6.60
General Department of Customs	1	0.26
General Department of Quality Measures	2	0.53
Prime Minister	1	0.26
Standing Committee of National Assembly	15	3.96
Total	**379**	**100.00**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

Table 12.4 goes into greater detail by summarizing the number and share of SPS, TBT, and export-related measures by issuing agency.

Table 12.4: Classification of Sanitary and Phytosanitary, Technical Barriers to Trade, and Export-related Measures by Issuing Agency

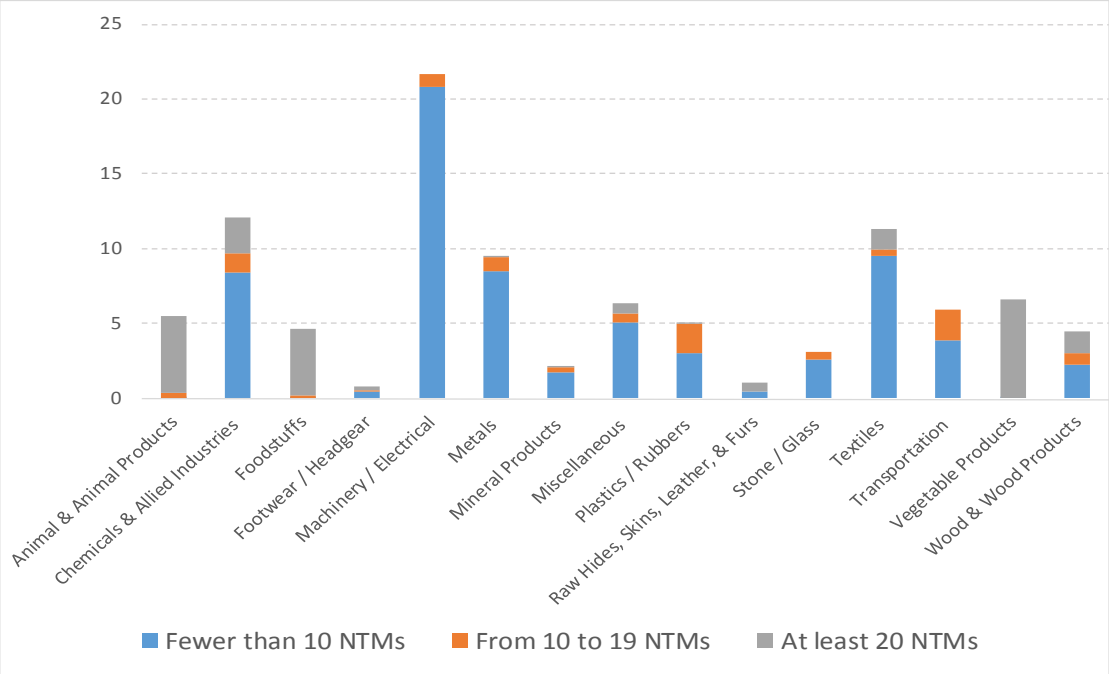
	SPS		TBT		Export-related Measures	
	Number	Share (%)	Number	Share (%)	Number	Share (%)
Ministry of Industry and Trade	8	5.6	11	7.7	4	6.3
Ministry of Transport	0	0.0	8	5.6	0	0.0
Ministry of Science and Technology	0	0.0	3	2.1	0	0.0
Ministry of Agriculture and Rural Development	66	46.5	31	21.8	32	50.8
Ministry of Finance	0	0.0	4	2.8	5	7.9
Ministry of Information and Communication	0	0.0	3	2.1	1	1.6
Ministry of Construction	0	0.0	5	3.5	0	0.0
Ministry of Health	30	21.1	30	21.1	1	1.6
Government	16	11.3	31	21.8	15	23.8
National Assembly	11	7.7	13	9.2	1	1.6
General Department of Quality Measures	0	0.0	2	1.4	0	0.0
Prime Minister	0	0.0	1	0.7	0	0.0
Standing Committee of National Assembly	11	7.7	0	0.0	4	6.3
Total	**142**	**100.0**	**142**	**100.0**	**63**	**100.0**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2.3. Products affected by non-tariff measures

Another aspect of NTMs that deserves attention is the scope of affected products. One way to do so is to calculate the number of NTMs applied in each product code/category. The proportion of NTM-affected products is calculated at the 8-digit Harmonized System (HS) level. Following that principle, Figure 12.3 summarizes the proportion of products at the 8-digit HS level that are subject to (i) fewer than 10 NTMs, (ii) between 10 and 19 NTMs (inclusive), and (iii) at least 20 NTMs. As a note, the NTM is identified at the highest disaggregated level, rather than at the chapter level (that is, A, B, C, and so on).

Figure 12.3: Summary of Number of Non-tariff Measures by Product Group (%)



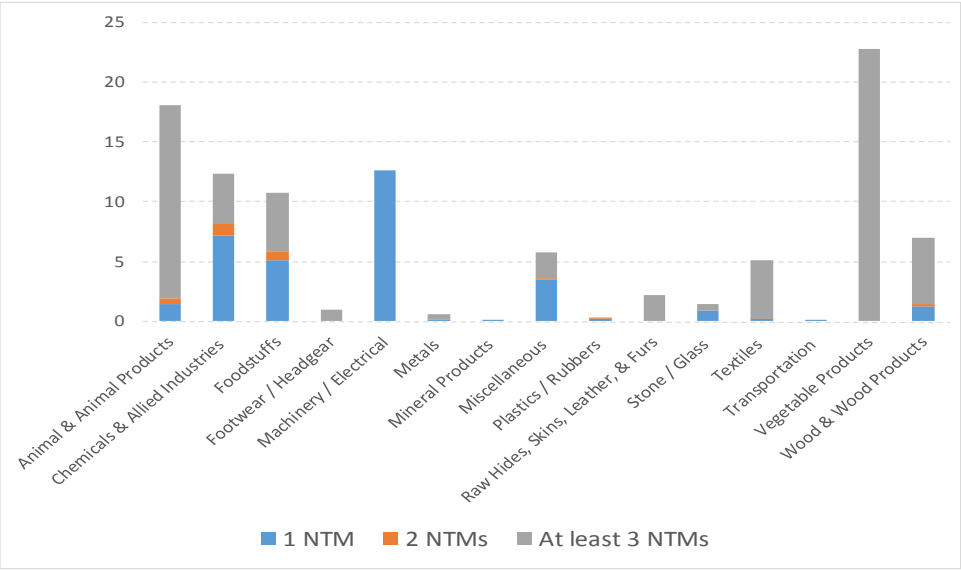
Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

It should be noted that no products in Viet Nam are free of NTMs. In fact, there are two NTMs that apply horizontally to all products. First, under Circular 28/2012/TT–BCT issued by the Ministry of Industry and Trade, traders with no presence in Viet Nam have to register rights to imports. This regulation affects all products. Second, following Decision 10/2010/QD–TTg of the Prime Minister, importers are required to obtain a Certificate of Free Sale (CFS) from the relevant authority of the exporting country for their products. Underlying this requirement is the need to ensure that imported products are eligible for free sale in Viet Nam. If the goods and products were to be exported to Viet Nam, the requirements under Chapter 3 (CFS requirements for products and goods imported into Viet Nam) are such that businesses that import the products and goods listed under the regulations should duly submit CFS to the Vietnamese competent authority (Article 17). However, if the competent authority so requires, the aforesaid CFS issued by the exporting country or region should undergo 'consular legalization' at the Vietnamese consulate or embassy in the exporting country, except where it is exempted pursuant to international pacts of which Viet Nam is a member nation or where it concerns the goods of exporting countries that have signed a mutual waiver of consular requirements with Viet Nam.

One should recall that a sizeable portion of NTMs in Viet Nam is applied to export products. Notable examples of such products are fishery and agricultural products. In many cases, the NTMs are applied on a voluntary basis, not because of a request by partners. There are several reasons to this. First, Viet Nam has to comply with commitments under international conventions (for example, prohibitions, conditional exports, among others). Second, Viet Nam applies voluntary export measures to ensure quality control of exported products.

Similar to Figure 12.3, Figure 12.4 depicts the prevalence of export-related measures across products at the 8-digit HS level that are subject to (i) one measure, (ii) two measures, and (iii) at least three measures. Again, the export-related measures are identified at the highest disaggregated level, rather than at the chapter level (i.e. A, B, C, etc.). Moreover, the share is calculated based on the number of 8-digit HS products that are subject to export-related measures (rather than all 8-digit HS products). As can be seen, exports of machinery and mechanical products are all subject to only one NTM. A large share of products under chemical and allied industries, foodstuffs, and wood products are subject to only one export-related measure, and export of vegetable products and animal-animal products are largely subject to at least three NTMs.

Figure 12.4: Summary of Export-related Measures by Product Group (%)



Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2.4. Objectives of non-tariff measures

There have been no clearly indicated reasons for the NTMs. Table 12.5 shows that almost 99 percent of NTMs are not accompanied by a specific objective. Only a couple of NTMs serve the explicit objective of protecting human life and health, and another two aim to protect the life and health of plants. In some cases, one can infer the objectives of NTMs, such as whether they seek to enhance food safety, protection of domestic industries (though the effect is not clear), and the quality control of imported products as they will at a later stage become inputs for export-oriented processing industries. Nonetheless, the ambiguity of NTM objectives casts doubt on the systematic use of such measures in trade.

Table 12.5: Reasons Cited for Non-tariff Measures

Measure Objective	Number of NTMs	%
No objective specified	375	98.94
Protection of human life and health	2	0.53
Protection of life and health of plants	2	0.53
Total	**379**	**100.00**

Source: Authors' calculation based on the newly constructed 2015 NTM database ASEAN-ERIA-UNCTAD raw data.

2.5. Countries affected by non-tariff measures

From the identification of NTMs, it emerged that 368 measures (or 97.1 percent of NTMs) applied to trade with all countries/territories. Only a few measures affected a group of countries/territories. The most notable measures are those pertaining to the trade of rough diamonds under the Kimberley process. In another instance, Viet Nam has a specific measure to control the quality of fishery exports to Japan. Viet Nam has not made use of NTMs on an MFN or discriminatory basis.

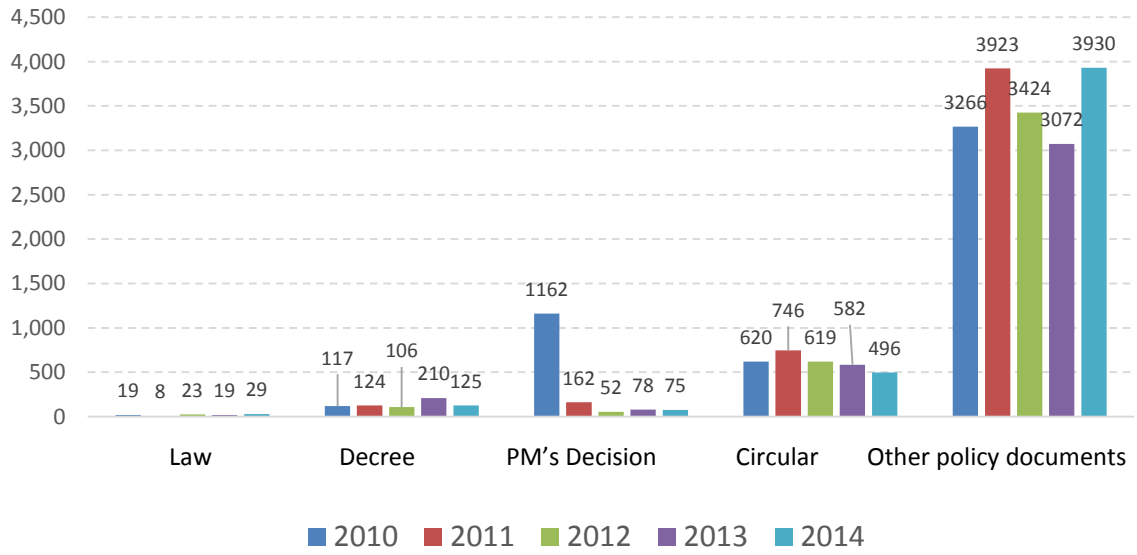
TBT measures are popular for the remaining products. Again, a significant proportion of the NTMs are with permits, testing, and authorization. Full prohibition also applies for some selected products, such as dangerous goods, chemical products, or arms. Unlike SPS measures, TBT can be found in regulations of a wide range of agencies, such as the Ministry of Industry and Trade, the Ministry of Agriculture and Rural Development, the Ministry of Information and Communication, and the Ministry of Transport. TBT mainly affects consumer products, motor vehicles, and dangerous goods. This is mainly because

they aim to protect domestic industries and ensure quality control for the benefit of consumers.

3. Key lessons

From the identification of NTMs in Viet Nam some key lessons emerge. First, Viet Nam needs to frequently monitor the regulations that may have NTM implications. This is because documents are frequently amended, replaced, or nullified in the country (Figure 12.5). The issue is hard to avoid, as Viet Nam continues to improve its legal framework and internalizes its commitments under international conventions and/or free trade agreements (FTAs). The online database can help with this process: new regulations will be promptly published in the indicated sources for data collection. In most cases, it takes 4–5 working days for new regulations to be posted online (from their date of publication). Still, all the current laws governing trade remain in effect and, notwithstanding a few comments/suggestions for partial revision, a major change in the legal system governing trade is not expected in 2016.

Figure 12.5: Number of Issued Documents, 2010–2014



PM = Prime Minister.
Source: Government of Viet Nam Portal. http://chinhphu.vn

Second, there should be greater investigation into the trade effects of NTMs, for several reasons. On the one hand, the measures tend to apply to all countries and

territories, but only some have current trade transactions with Viet Nam. On the other hand, the measures apply to broad product categories, whereas only a few HS products in such categories are actually affected. Of course, it may be argued that the absence of trade transactions for some products and/or with some countries actually resulted from the impact of NTMs. Still, in this regard, analysing the trade effects of NTMs attains even greater importance.

Third, we need to constantly check the consistency of NTMs from root documents (that is, laws and ordinances, among others) with those under guiding documents (such as decrees and circulars) to avoid duplication. In many cases, the NTMs at the decision or circular levels are only elaborated from the laws, without adding more effect. Looking at the root documents ensures that the affected products are captured comprehensively, but the period of effects and exemption of effects may be better presented in the guiding documents.

Finally, given the proliferation of FTAs in Viet Nam (Figure 12.1), one should keep track of all those FTAs. At this stage, FTAs do not affect NTMs as Viet Nam continues to apply them equally to all partners. That is, preferential treatment under FTAs is not done significantly by means of NTMs. Still, the large number of bilateral and plurilateral FTAs now does not exclude the possibility that some NTMs are effective towards selected countries only. In addition, rules of origin may have more implications under those FTAs, but are excluded from this analysis.

4. Recommendations

On the basis of the above identification of NTMs and the key lessons that emerged, we present some recommendations for Viet Nam. First, the country needs to frequently update the database of the government's inquiry points (SPS, TBT). The websites are accessible, but sometimes regulations are already ineffective or have been amended. Also, the documents are available in only in Vietnamese, so an English translation should be added to ensure it can be understood by foreign as well as domestic traders.

Second, Viet Nam needs to promptly construct a national trade repository, which would provide more consistent, transparent, and easily accessible information on NTMs. It may also help prepare the country for implementing commitments under various

international frameworks (such as the work on the ASEAN Trade Repository under the ASEAN Economic Community).

Third, the regulations should also clearly identify HS codes for affected products in NTM regulations. Having worded descriptions of affect products is insufficient, given the inadequate harmonization of product groups in Viet Nam and in other partners. Listing the HS codes can help traders in making customs declarations and improves the quality of custom data on trade.

Fourth, trade effects of NTMs should be well documented. This will give more insight into the types of NTMs that are relevant and/or can be phased out. In addition, given the complexity of regulations that might have NTM implications, analysing the trade effects can actually help in avoiding unnecessary burdens on trade activities.

Fifth, Viet Nam should continue to apply NTMs equally to all partners. In other words, Viet Nam should avoid particular NTMs for imports from certain countries or territories, except under special circumstances or for a short period. Using NTMs on a discriminatory basis is likely to divert trade away from the partners concerned and increase administrative costs for managing NTMs in Viet Nam.

Finally, Viet Nam should aim for better more transparent justified NTMs. This will help reduce the unnecessary burden of NTMs on traders and businesses. In various cases, *ex ante* consultation might help collect relevant insight from traders and businesses, which would improve the quality of the regulation itself – when the business community is confident NTMs are legitimate, this will improve their actual effectiveness.

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