

Non-Tariff Measures Faced by Philippine Agricultural Exports in East Asia

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ABSTRACT

Many consider non-tariff measures (NTMs) as another protectionist stratagem to prevent exports, especially of agriculture, from developing countries. Philippine exporters seem to be taking things in stride, however. The estimated cost of less than 3% of sales borne by a Philippine food exporter due to compliance with certification requirements is less than three percent of sales—relatively insignificant. However, the increased cost from NTMs can adversely affect small-scale industries and exporters that sell products to low-margin foreign markets. The paper also traces the Philippine export products affected by non-tariff measures imposed by East Asian markets. In all, the NTMs of Japan, Korea, and China affect a total of US\$98 million of Philippine agriculture exports to these markets, or 2% to 22% of Philippine agricultural exports in these three countries.

INTRODUCTION

At the time when import tariffs have fallen substantially in almost all countries, non-tariff measures conspicuously grew. While some non-tariff measures are not necessarily instituted to curtail foreign trade as such, but rather, for health, sanitary, and safety considerations, they nevertheless, tend to limit trade, especially from developing to developed economies, usually because the comparative levels of health and safety standards are naturally disparate. The fact that non-tariff measures are now a given in international trade has given rise to this question, to wit: how have these measures affected trade empirically? In the case of Philippine exports of agriculture and fish, how much of these are subjected to non-tariff measures? Which products are most vulnerable? What specific non-tariff measures are most difficult to overcome? What are some of its cost implications? This paper attempts to answer these questions in the context of the country's three major Asian markets, namely: Japan, Korea, and China.

First off, what are non-tariff measures (NTMs)? The existing literature tends to have an all-encompassing definition for NTMs as essentially almost every trade-distorting measure, apart from tariffs. For example, the Organization of Economic Cooperation and Development (OECD) defines an NTM as “any measure other than a tariff that distorts trade” (OECD 2005). Baldwin (1970) applies the term to “any measure (public or private) that causes internationally traded goods and services, or resources devoted to the production of these goods and services, to be allocated in such a way as to reduce potential real world income”. If NTMs distort trade, are they, therefore, non-tariff barriers (NTBs)? In trade literature, the two terms—non-tariff measures and non-tariff barriers—are often used interchangeably, although some authors prefer to apply the term “non-tariff measure” to measures, e.g., standards that are applied equally to domestic and foreign producers, while reserving “non-tariff barrier” for those that specifically discriminate against imports.

There are several types of non-tariff measures imposed by trading countries. According to the typology of NTMs drawn up by the United Nations Conference on Trade and Development (UNCTAD), these include non-tariff charges, quantitative restrictions, government participation in trade and similar restrictive policies, customs procedures and administrative policies, and finally, technical standards (UNCTAD 1994)¹. These measures increase the cost of production for companies serving in foreign markets, raising entry barriers with higher up-front costs and diminishing the ability of firms to compete in the process. The costs depend on the stringency of measures adopted, the required speed of implementation, the nature of the supply chain, and the technical measures already in place in the exporter's domestic market (OECD 2001). Thus, middle-income developing countries that already have relatively stringent technical and health standards, for example, might not experience a very high cost of adjustment vis-à-vis the NTMs adopted in developed export markets.

Unlike tariffs, though, certain non-tariff measures may have more altruistic goals than mere trade protection. This could be true for technical measures, be they technical or industrial standards, or health-related ones that are applied by nations in an attempt to protect their citizens from products that may be inferior or deficient in some way, or, in some cases, even dangerous to the consumers' well-being². Other technical standards, meanwhile, are measures that regulate product characteristics, marking, labeling, packaging, testing, inspection and quarantine processes, and information dissemination by exporters.

Compliance with these health and technical standards entails additional cost and can shrink trade volumes. However, in some cases, it can also, arguably, increase trade. Directly aimed

at overcoming market failures, say imperfect information, NTMs like standards and regulations may expand trade by facilitating production and exchange, reducing transactions costs, guaranteeing quality, and achieving the provision of public goods (Maskus, Wilson and Otsuki 2003). Where trade in some products would have been difficult without clear standards, with it, trade could be created between two countries.

However, countries may also use standards for market protection purposes. These measures are often less predictable and may be less transparent than pure volume or tariff restrictions. NTMs are more difficult to challenge, as convoluted scientific issues may be brought into play while developing and less-developed economies (LDCs) have poor capacity to challenge so-called 'scientific' arguments. In addition, quarantine regulations and administrative practices can also easily become trade-restrictive.

In particular, standards may become barriers to trade when they vary between countries or are more stringent than internationally accepted standards. Usually, the costs of meeting them are higher for foreign as opposed to local firms, simply because domestic firms are better acquainted with the institutional structures in their countries and are likely to have better access to information and compliance-related capabilities. Having had many years, presumably, to adapt and apply the approved standards in their production processes, domestic firms also have an advantage over their foreign counterparts who may have a different set of standards (or none, especially in the case of poorer economies) for their own local markets. When the fees are higher and the tests stricter for foreign products, the imbalance becomes even more pronounced. In this situation, the competitive advantage of some developing countries in the area

¹ UNCTAD and the International Trade Center (ITC) are currently revising the non-tariff measures typology. The typology used throughout this paper, however, is based on what had been used in the UNCTAD/TRAINS database as of this writing.

² The Uruguay Round agreement has two separate Agreements that provide the core trade rules on non-tariff barriers. One is the Agreement on Technical Barriers to Trade (TBT) and the other is the Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures. SPS measures and TBTs constitute the core trade rules on non-tariff barriers. SPS measures are instituted by countries with a stated aim of protecting human, plant, and animal life. Under the SPS Agreement, such measures are acceptable under some conditions. Among these is that the measure must be necessary to protect human, plant, or animal life. Moreover, the measure must be based on scientific principles and must have sufficient scientific evidence for it to be maintained. The principle of proportionality enshrined in the WTO Agreement on SPS states that it is incumbent upon members to "ensure that any SPS measures applied are not more trade restrictive than required to achieve the appropriate level of protection."

of agriculture may be undercut by increased costs that disadvantage them vis-à-vis domestic firms.

What is the net effect of non-tariff measures? The quantification of effects of NTMs is not an easy task, and a single, universally accepted method for measurement does not exist. Some CGE (computable general equilibrium) studies, however, estimate that the global gains resulting from the abolition of NTMs could amount to as much as US\$90 billion (Ferrantino 2006). If true, some of these gains would redound to agricultural exporters from the Philippines, whose products face non-tariff barriers in various destination markets.

The paper provides a brief profile of Philippine agricultural exports, both overall and specifically to China, Japan and Korea. It also presents an overview of theoretical and empirical work on non-tariff measures. The non-tariff measures affecting Philippine agricultural exports in the East Asian market are also identified. The paper also provides a micro look at non-tariff measures experienced by selected exporters in the destination market as well as the 'presumed' cost of domestic compliance in using the certification systems in the Philippines.

PHILIPPINE AGRICULTURAL EXPORTS TO EAST ASIA³

The Philippines is not a major exporter of agricultural products. Agriculture's share in the country's total exports is heavily dwarfed by the share of non-agricultural products, for instance by a ratio of 6% to 94% in 2005 (see Table 1). But agriculture is important for the economy because the bulk of the country's labor force is still in agriculture (37%). For the relatively small proportion of agricultural and fish exports from the Philippines, the East Asian market is its biggest destination, absorbing 26% of total Philippine agriculture and fish exports. The United States, though geographically far, accommodates 22%, followed by the European Union and ASEAN, with 19% and 14% shares, respectively.

Between 2000 and 2005, the Philippines' agricultural exports to the world posted a significant growth of 48% while fish exports declined.

However, diced up geographically, the export of fishery products grew by 121% in East Asia, even outpacing the growth of non-agricultural exports of 75%, while agricultural exports to East Asia grew at a lackluster rate of one percent. The stark contrasts in these growth rates signify the major source of growth of the respective export sectors: for fisheries and non-agricultural exports, it is East Asia; for agriculture, it is the other parts of the world.

Top Agriculture and Fish Exports

The bulk of the country's agricultural exports (25.9%) consists of animal and vegetable fats and oils specifically, coconuts (copra), palm kernels and babassu oils. Edible fruits, nuts, and peels of citrus and lemons come second, of which bananas make up a huge portion. Fruits and nuts come third (10.6% of total agri-exports), followed by crustaceans and mollusks of the fish and fish products category.

Tobacco and manufactured tobacco substitutes, on the other hand, constitute about five percent of total agriculture exports. Of this category, cigars and cigarettes, as opposed to unmanufactured tobacco, actually comprise the bulk of the sector's exports.

Sugar and sugar confectionery, particularly cane or beet sugar, as well as chemically pure sucrose, comprise about four percent of total agriculture exports and is the country's sixth largest export, amounting to about \$110 million. This is followed by another set of fish products, particularly of prepared or preserved fish and fish eggs, and prepared or preserved crustaceans and mollusks.

The country's top ten agricultural exports are rounded out mostly by cereal and dairy products and miscellaneous food preparations. Of the cereals category, baked breads, pastries, wafers, rice paper, and biscuits are the top exports, while milk and cream, whether concentrated or sweetened, lead the dairy products, followed by cheese and curd.

It is interesting to note that there is a slight variation between the profile of the top ten agriculture and fish exports to the world and to East

³ Agriculture is defined in this study the same way that it is defined in the Agreement on Agriculture in the GATT Legal Text. Fish and fish products, on the other hand, correspond to the list in chapters 3 and 16 of the Harmonized System (HS).

Table 1. Summary of Philippine exports to East Asia* and the world.

Exports	2000 (\$M)	Percent share to total	2005 (\$M)	Percent share to total	Growth (%)
To the World					
Total exports of agricultural and fish products	1,897.202	4.98	2,561.541	6.21	35.02
Total export of agricultural products	1,495.343	3.93	2,211.686	5.37	47.90
Total export of fish and fish products	401.859	1.06	349.855	0.85	-12.94
Total exports of non-agricultural products	36,181.048	95.02	38,659.733	93.79	6.85
To East Asia					
Total exports of agricultural and fish products	592.202	7.95	655.119	5.17	10.62
Total export of agricultural products	544.638	7.31	550.237	4.34	1.03
Total export of fish and fish products	47.564	0.64	104.883	0.83	120.51
Total exports of non-agricultural products	6,852.293	92.05	12,015.879	94.83	75.36
Memo items	Trade value in 2005 (\$M)	Share in total agri. and fish exports (%)	Share in total exports (%)		
Total agricultural and fish exports to the US	584.586	22.82	1.42		
Total agricultural and fish exports to the EU	511.403	19.97	1.24		
Total agricultural and fish exports to ASEAN	371.966	14.52	0.90		
Total agricultural and fish exports to East Asia	655.119	25.58	1.59		

Source: World Integrated Trade Solution (WITS) database of World Bank.

* China, Japan and the Republic of Korea.

Asia. For instance, for East Asia as a whole, only eight of the top ten exports to the world are also the Philippines' top exports to the region. What are missing in world exports but are present in the top exports to East Asia are the more perishable items like vegetables (HS 07) or residues and animal fodder (HS 23).

For the top exports to China, products of animal origin (HS 05), oil seed, etc. (HS 12), and lac, gums, resins, etc. (HS 13) are not found in the top ten Philippine exports to the world. For top exports to Japan, besides vegetables (HS 07), meat and edible meat offal (HS 02) and beverages, spirits and vinegar (HS 22) do not make it to the top ten overall. For Korea, the items excluded in the overall list are residues and animal fodder (HS 23), oil seeds, etc. (HS 12), and beverages (HS 22).

On the other hand, the consistent top performers in East Asia are: edible fruits, etc. (HS 08), of which, bananas and mangoes are the star exports; fish (HS 03); animal and vegetable fats and oils (HS 15), of which, copra or coconut oil leads; vegetable, fruit, nut (HS 20); and sugar (HS 17). Coconut oil, a top Philippine export, ranks only third in East Asia, probably due to the fact that the region also has its own domestic coconut oil source.

Direction of Agriculture Trade

The East Asian market is the Philippines' biggest agricultural and fish exports market, absorbing 25.6% of the total. Of the three destinations, Japan accounts for more than half of Philippine agricultural exports to the region (at 17%), while

Table 2. Top ten agricultural and fish exports of the Philippines.

HS code (2-digit)	Description	Trade value (in \$M)	Share in agricultural and fish exports (%)	Share in total exports (%)	Global ranking	Rank in: East Asia	China	Japan	Korea
15	Animal, vegetable fats and oils, cleavage products, etc.	663.229	25.891	1.609	1	3	3	3	2
08	Edible fruits, nuts, peel of citrus fruit, melons	576.855	22.52	1.399	2	1	1	1	1
20	Vegetable, fruit, nut, etc. food preparations	271.623	10.604	0.659	3	4	2	5	6
03	Fish, live, fresh, chilled, frozen, crustaceans, mollusks, snails	240.440	9.387	0.583	4	2	6	2	3
24	Tobacco and manufactured tobacco substitutes	143.738	5.611	0.348	5	6	10	-	4
17	Sugars and sugar confectionery	110.642	4.319	0.268	6	9	5	7	7
16	Fish and caviar, caviar substitutes	109.415	4.271	0.265	7	-	-	-	-
19	Cereal, flour, starch, milk preparations and products	84.089	3.283	0.204	8	8	-	9	6
04	Dairy products, eggs, honey, edible animal product n.e.s.	77.254	3.016	0.187	9	-	-	-	-
21	Miscellaneous edible preparations	60.501	2.632	0.147	10	10	8	6	-

Source: WITS database.

Table 3. Direction of agricultural trade.

	Value of agricultural and fish exports (\$M)	Share in total agri exports	Share of agri & fishery (%) in total exports (%)	Share to total RP exports (%)
East Asia	655.119	25.58	1.59	
China	54.482	2.13	0.13	9.89
Japan	424.645	16.57	1.03	17.47
Korea	175.992	6.87	0.43	3.37

Source of basic data: WITS database.

China remains a very small market, accounting for a minuscule 2% (see Table 3). This may be largely due to the fact that the Filipino exporters' preferred destinations are also those markets that provide higher values to their products. The interviewed exporters reveal that the margins for products exported to China are so small that any additional costs from non-tariff measures will easily wipe

out the little gains they get. Korea is somewhere in between Japan and China, accounting for seven percent of total Philippine agriculture trade.

Interestingly, for non-agricultural product exports, China has increasingly become a major market for the Philippines, accounting for 10% of total Philippine exports, which is not too far away from Japan's share of 17%.

NON-TARIFF MEASURES:
THEORY AND EVIDENCE

Non-Tariff Measures in Simple Graph

The existence of some sanitary and phytosanitary measures and technical standards may be validly defended by imposing nations as consumer protection which, in the end, enhances economic welfare. However, this is not always the case. In fact, regulatory protectionism, defined by Sykes (1999) as “any cost disadvantage imposed on foreign firms by a regulatory policy that discriminates against or that otherwise disadvantages them in a manner that is unnecessary to the attainment of some genuine, nonprotectionist regulatory objective” (emphasis our own), has been found to reduce general welfare.

To illustrate, consider a country that unnecessarily demands all its foreign suppliers of bananas to reduce the residue of Chemical A to a particular limit. For the foreign suppliers to attain this limit, they will be constrained to purchase, say, a particular pesticide that adds t to their production

costs. As is the nature of business, these producers will pass this cost onto consumers, selling the bananas that they could normally supply at price P elsewhere at price $P + t$ instead.

The implications can be seen in Figure 1. The market clears at that higher price. In such a situation, imports equate to $Q^* - Q$, while domestic production is Q . Domestic producer surplus will equal $(P + t)bg$, while consumer surplus is $(P + t)ch$. The deadweight loss in this scenario is the area $ebcf$ [the difference between initial consumer surplus Pfh and new consumer surplus $(P + t)ch$ plus additional surplus captured by the producers $(P + t)bep$]. By definition, no one benefits from this loss; thus the elimination of the unnecessary requirement would lead to a global welfare gain.

In summary, a non-tariff barrier that increases production costs leads to higher domestic prices ($P + t$ instead of P), reduces the amount of imports ($Q^* - Q$ instead of $f - e$), and lowers consumer surplus ($(P + t)ch$ instead of Pfh) and net welfare in the importing country. These theoretical results have found some empirical support in a number of studies.

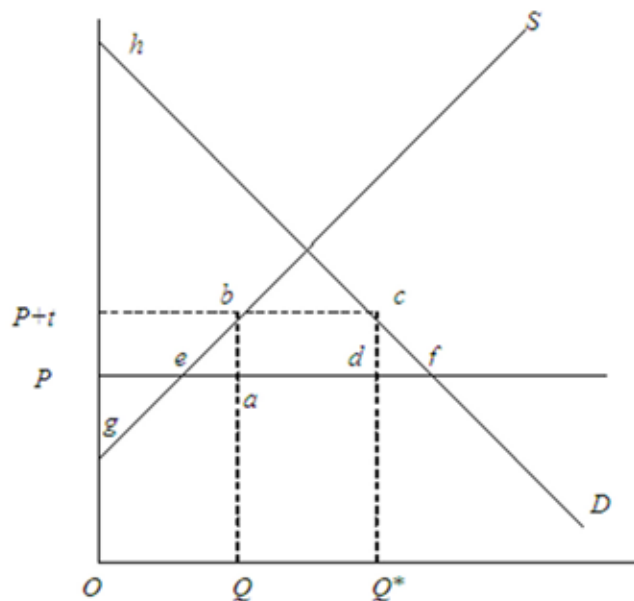


FIGURE 1 Representation of Welfare Effects of NTMs

For example, the increase in prices in foreign markets due to the imposition of non-tariff measures has been empirically verified. Using price data for 47 products in 115 cities in more than 60 countries, Dean, Feinberg, Signoret, Ferrantino and Ludema (2006) found that non-tariff measures on fruits and vegetables raised retail prices by 141%, on meats by 93%, on processed foods by 87%, and on apparel by 21%. On reduced imports, Otsuki, Wilson, and Sewadeh (2001) showed that, relative to their exports if international standards were used, African exports to the EU decreased by 64% as a result of new EU standards on agriculture imports. Meanwhile, Andriamananjara, Ferrantino and Tsigas (2003)'s explorations using the GTAP framework, revealed that global welfare would increase by almost US\$2.3 billion if NTMs on processed foods were eliminated.

Types of NTMs

There are many types of non-tariff measures, each with its own rationale for imposition and varied effects. Studies that examine the extent of NTM application in different countries often employ a classification system to distinguish among the myriad measures. One classification is the UNCTAD's Coding System of Trade Control Measures.⁴ This system segregates NTMs into: 1) price control measures; 2) finance measures; 3) automatic licensing measures; 4) quantity control measures; 5) monopolistic measures; and 6) technical measures.⁵

Sanitary and phytosanitary standards (SPS), as well as technical barriers to trade (TBT), fall under the last group (technical measures), and are often found under the subcategories on product characteristics requirements (NTM Code 8110) and testing, and inspection, and quarantine requirements (NTM Code 8150). Because the UNCTAD's Trade Analysis and Information System (TRAINS) database—the primary reference for non-tariff

measures as reported by imposing countries—follows this classification system, it is often used in published research on NTMs.

The World Trade Organization (WTO), for its part, maintains the Negotiating Group on Market Access for Non-agricultural Products (NAMA) Inventory of Non-tariff Measures. This list groups NTMs into: 1) government participation in trade and restrictive practices tolerated by the government; 2) customs and administrative entry procedures; 3) technical barriers to trade; 4) sanitary and phytosanitary measures; 5) specific limitations; 6) charges on imports; and 7) other.

Over the period March 2003 to October 2004, the WTO encouraged its member countries to notify the NAMA of barriers directly affecting their exports in foreign markets. The OECD (2005) inspected a total of 1,200 notifications made by 11 OECD countries and 21 non-OECD countries⁶. The study found that of the categories of NTMs⁷, Technical Barriers to Trade (with 530 NTM entries) constituted almost half of the total; Customs and Administrative Procedures (with 380 entries) came up second; and Sanitary and Phytosanitary Measures (with 137 entries), third.

In another paper written for the US International Trade Commission (USITC), Donnelly and Manifold (2006) examined the United States Trade Representative's National Trade Estimate Report on Foreign Trade Barriers, the European Union's Market Access Database, and the WTO's Trade Policy Reviews to compile a list of non-tariff measures reported by 53 countries. Because these three sources do not use a standard classification system, the authors made their own list of 15 categories for the study. These are: 1) anticompetitive practices / competition policy; 2) intellectual property rights; 3) corruption; 4) investment-related measures; 5) customs procedures; 6) sanitary and phytosanitary measures; 7) export-related measures; 8) services; 9) standards, testing, certification and labeling; 10) government procurement; 11) import licensing;

⁴ The full and detailed listing may be found in Appendix A.

⁵ UNCTAD and the International Trade Center (ITC) are currently undertaking a project to improve the classification of non-tariff measures. The classification discussed in this paper is still based on the old classification.

⁶ 19 percent of these countries are high-income economies; 28 percent, upper-middle income; 28 percent, lower -middle income; and 24 percent, low-income.

⁷ These categories are based on a slightly modified version of the NAMA Inventory of Non-tariff Measures.

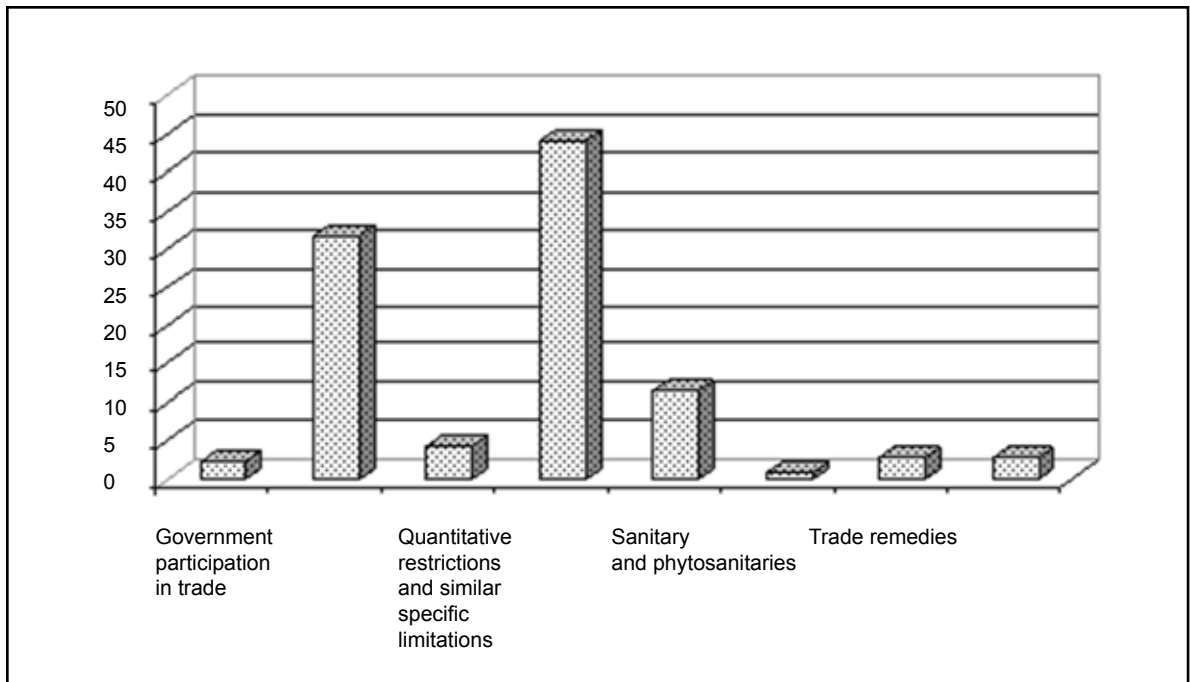


Fig. 2. Frequency of notifications by NTM category.
(As a percentage of total notifications)

12) state-trading; 13) import prohibitions; 14) taxes; and 15) import quotas.

Their results show that technical barriers to trade in the form of standards, testing, certification, and labeling were the third most widespread category of NTMs, practiced by 38 out of the 53 countries studied. These TBTs can act as important obstacles to trade with developed countries whose technical regulations, standards and conformity assessment procedures may effectively serve as border-protection instruments.

Developing countries are particularly vulnerable to regulatory changes because the relative scarcity of both public and private resources hampers their ability to comply with more restrictive standards (Otsuki et al. 2001). Key compliance resources such as information on technical requirements and procedures of conformity assessment, requisite technical and scientific expertise, and capital and financial resources are often in limited supply in these economies (OECD 2001). Further, differing standards and technical regulations, combined with costs of testing and certifying compliance, add to firm expenditures and are found to constitute between two to ten percent of a firm's overall production costs (OECD 1996).

Similarly, in the ASEAN, the Interim Technical Working Group on the Common Effective Preferential Tariff Scheme (CEPT) for the ASEAN Free Trade Area (AFTA) has determined that within the region, technical measures and product characteristic requirements were the second most commonly applied NTM, covering more than 975 tariff lines.

NTMs on Agriculture

Empirical work suggests that agricultural commodities bear a great deal of the burden of NTMs. Many studies (Bora, Kuwahara and Laird 2002; Pasadilla 2006) find that the incidence of NTMs on agriculture tariff lines is higher than in manufacturing. As to specific agricultural products, live animals, meats, dairy, and fruits and vegetables are among those with higher reported NTMs, particularly SPS and customs and administrative barriers (OECD 2005; Dean, Feinberg, Ferrantino and Ludema 2003). These studies show that agricultural export are likely to face more critical market access problems than their manufacturing counterparts.

Table 4. Most prevalent NTMs in ASEAN.

Non-tariff measure	Number of tariff lines applied
Customs surcharges	2,683
Additional Charges	126
Single Channel for Imports	65
State-trading Administration	10
Technical Measures	568
Product Characteristic Requirement	407
Marketing Requirements	3
Technical Regulations	3

Source: The ASEAN Secretariat.

NON-TARIFF MEASURES IN EAST ASIA

This section analyzes the UNCTAD/TRAINS database which contains a list of non-tariff measures per commodity as reported by the imposing countries. In its most recent submission in 2001, China reports using 1,849 non-tariff measures, of which, 134 (or 7.25%) are on agricultural products. Japan, in its own 2001 report, lists 1,533 NTMs, of which 1,302 or 84.93% target agricultural imports. A 1996 report on Korea shows that of the existing 176 NTMs, 95.45% or 168 deal with agricultural commodities.

Agriculture Non-Tariff Measures in China

According to TRAINS, China has six different types of NTMs. The table below lists the number of agricultural and fishery commodities at the HS 6-digit level subject to these different NTMs.

Among the single categories, authorization requirements⁸ are clearly the most prevalent. Cumulatively, however, under technical measures, testing, inspection and quarantine requirements comprise almost 50 percent of the country's NTMs, affecting both agricultural and non-agricultural goods.

According to the WTO's 2006 Trade Policy Review, China's non-tariff measures include import permit requirements for animals and plants, sanitary health certificates requirement from the

Table 5. Agriculture categories affected by NTMs in China.

NTM Code	Type of NTM	No. of commodity categories affected (HS6)*
6160	Authorization	49
6210	Global quotas	19
8151	Test for human health	26
8152	Test for animal health	5
8153	Test for plant health	14
8159	Test for purposes n.e.s.	21
Total		134

Source: World Integrated Trade Solution database of the World Bank.

*Note: Although there are less than 134 different commodity categories affected by NTMs, some commodities face more than one type of NTM.

country of origin, border inspection, and labeling requirements (specific information required by Chinese authorities have to be in Chinese). Furthermore, applicants must have a valid permit each time they wish to import products subject to SPS requirements.

China has maximum residue limit (MRL) standards for certain chemicals (e.g., selenium in wheat) that are more stringent than international standards. It also has zero tolerance for particular pathogens in raw meat and poultry products. In addition, the Chinese authorities are very particular about food additives, blocking even those that are widely used in other countries and have been approved by the World Health Organization (USTR 2006a).

According to TRAINS data, China's NTMs affect 5.29 % or seven out of 102 commodities of Philippine exports⁹. Thus, most of the country's NTMs on agriculture products which target 134 product categories, do not actually affect many Philippine agricultural exports to China. The few that are affected are: coconut (copra) oil, margarine, and whole hides and skins of bovine animals. Table 6 provides a detailed list of Philippine exports facing non-tariff measures in China, and their respective trade values.

⁸ These traditionally refer to import licenses combined with or replaced by special import authorization.

⁹ At the HS 6-digit level.

Agriculture Non-tariff Measures in Japan

Japan imposes several types of non-tariff measures on agricultural imports. Table 7 presents these NTMs and the number of commodity categories they affect. In particular, tariff quotas, variable charges, and health measures clearly dominate NTMs in Japan.

The Food Sanitation Law is the primary piece of legislation that governs standards, and sanitary and phytosanitary measures in Japan. More specifically, the 2004 WTO Trade Policy Review of Japan (WTO 2004a) reports that 515 standards regulations are included in this law. Requirements include adherence to a positive list of approved food additives, maximum residue limits on particular

Table 6. Philippine exports facing NTMs in China.

HS product code	Description	NTM code	Trade value (\$ '000)
151311	Coconut (copra) oil and its fractions :-- Crude oil	8151	153.774
151319	Coconut (copra) oil and its fractions :-- Other	8151	2,266.78
151710	Margarine, excluding liquid margarine	8151	31.601
230990	Other	8152, 8159	26.844
240220	Cigarettes containing tobacco	8159	319.5
410110	Whole hides and skins of bovine animals, of a weight per skin not exceeding 8 kg when simply dried, 10 kg when dry-salted, or 14 kg when fresh, wet-salted or otherwise preserved	8159	14.329
410390	Other	8159	70.211
Total trade value			2,883.04
Percent of total Philippine exports to China (Percent of total agricultural exports)			0.07% (5.29%)

Table 7. Agriculture categories affected by NTMs in Japan.

NTM code (HS6)	Type of NTM	No. of commodity categories affected
1400	Tariff quotas	307
1500	Seasonal tariff rates	9
3390	Variable charges n.e.s.	346
6160	Authorization	74
6175	Authorization for wildlife protection	110
6210	Global quotas	31
6271	Quotas to protect human health	1
6276	Quotas to control drug abuse	13
7120	Sole importing agency	11
8111	Product characteristics for human health	278
8151	Test for human health	54
8153	Test for plant health	64
8190	Technical regulations n.e.s.	4
Total	1302	

Source: World Integrated Trade Solution database of the World Bank.
See also note to Table 5.

pesticides, specific treatments, and Japanese-language labeling. Import documents, such as an import notification, required health certificate, examination results and manufacturer certification on materials, additives and manufacturing processes, must be obtained prior to entry. Upon their arrival, items requiring examination have samples taken. Once compliance is assured, the products are allowed entry (USDA 2001).

Japan routinely requires fumigation of imported products for specific insect species. However, fumigation speeds up product deterioration and is detrimental to trade in fresh fruits and vegetables. Import quotas on fish products also exist and, like China, the country has a rather restrictive food additive list.

Of 196 commodities exported by the Philippines to Japan, 68 face NTMs (see Table 8 for partial listing).¹⁰ With a total trade value of more than 92 million dollars, they comprise 21.67% of the value of Philippine agricultural exports to the country.

Agriculture Non-Tariff Measures in Korea

Korea's 1996 report consists solely of tariff quotas (NTM Code 1400) but the 2004 WTO Trade Policy Review points to three main laws that affect food standards: the Food Sanitation Act of 1986, the Food Code, and the Food Additive Code from which other NTMs can be derived.

Korea currently imposes quantitative restrictions on certain agricultural and fishery products through its import licensing system. Obtaining approval for processed food products without unapproved additives normally takes three to ten days. If unapproved additives are present, processing takes between six to twelve months. Imported foods recognized as safe by the Korean Food and Drug Administration Commissioner are exempted from mandatory MRL-related laboratory testing that would otherwise cost the importer US\$500 (USTR 2006c).

¹⁰ The complete list may be found in the original discussion paper on which this article is based.

Table 8. Selected Philippine exports facing NTMs in Japan.

Product code (\$ '000)	Description	NTM code	Trade value
10600	Other live animals	6160, 6175	515.755
30110	Ornamental fish	6175	909.023
30342	Tunas (of the genus <i>Thunnus</i>), skipjack or stripe-bellied bonito (<i>Euthynnus</i> (<i>Katsuwonus</i>) <i>pelamis</i>), excluding livers and roes :-- Yellowfin tunas (<i>Thunnus albacares</i>)	6160, 6210	7,523.65
30549	Smoked fish, including fillets :-- Other	6160, 6210, 6175	1,134.80
30613	Frozen :-- Shrimps and prawns	6160	48,110.16
30614	Frozen :-- Crabs	6160	87.557
121220	Seaweeds and other algae	6160, 6276	821.452
210112	Extracts, essences and concentrates, of coffee, and preparations with a basis of these extracts, essences or concentrates or with a basis of coffee :-- Preparations with a basis of extracts, essences or concentrates or	8111, 1400, 3390	3,793.57
230910	Dog or cat food, put up for retail sale	6160, 6175	91.483
Total trade facing NTM			92,019.75
Percent of total Philippine exports to Japan (Percent of total agricultural exports)			1.28%(21.67%)

The National Plant Quarantine Service inspects imported plants or plant products. Imports must have a phytosanitary certificate issued by the competent authority in the exporting country. "Imports of fresh fruit (excluding coconut palm, pineapple and immature banana) are generally prohibited or restricted to certain countries, for disease or pest reasons. Some prohibited fruit imports are allowed subject to specific conditions, for example, mangoes from Chinese Taipei and the Philippines that undergo vapor heat treatment and pass pre-clearance inspection before being exported" (WTO 2004b).

Meanwhile, the National Veterinary Research and Quarantine Service conducts animal quarantine and sanitary regulations. Animal and animal products undergo laboratory testing and epidemiological investigations to verify they are not from disease-infected import-prohibited regions (WTO 2004b). Prior to export, Korea requires pre-approval of meat facilities (USDA 2006).

The country requires origin labeling for all food products (WTO 2004b). The labels must be in Korean, although the country allows stickers pasted over original manufacturer-printed labels (USDA 2006).

According to TRAINS data, of the 129 commodities exported by the Philippines to Korea, 20 face NTMs, representing 1.96% of total export value (see Table 9).

PROCEDURES AND COST IMPLICATIONS: SELECTED CASE STUDIES

To better understand the implications of non-tariff measures on actual exporting firms, we interviewed some exporters of selected agricultural products. This section discusses the micro-level implications on costs and the actual procedures carried out to satisfy the requirements in the destination markets.

Mangoes

The Philippine mango is in high demand in East Asia, but to gain market entry, exporters must face a host of stringent requirements. For example, to be deemed acceptable for import to Japan and

Korea, fruits need to undergo a process called vapor heat treatment (VHT) to remove fruit flies¹¹. Inspectors from the Bureau of Plant Industry (BPI) of the Department of Agriculture of the Philippines as well as representatives of the national plant protection agencies of Japan (or Korea) supervise the VHT process¹², which usually takes place at the exporters' plants. The companies finance the entire operation, including expenses incurred by foreign inspectors, who stay in the Philippines for months at a time to observe treatment and export packaging.

The costs incurred for some tests are staggering. To address Japan's chlorpyrifos¹³ residue limits in 2005 alone, Diamond Star Agro Products, one of the Philippines' major mango exporters, incurred an additional PhP9 million for laboratory testing. Despite this, some fresh mango shipments were still rejected for being above the minimum residue limit. Moreover, Japan intends to institute lower limits for 44 other chemicals. At present, aside from chlorpyrifos, mangos are also tested for cypermethrin. Each analysis costs PhP2,000 per sample.

With the introduction of chemical-related requirements, exporters now have the added onus of ensuring traceability since labels must now include the corresponding source (farm). Estimates suggest that label switching, an extra step in the production process, adds 30-40 percent to manpower time.

¹¹ China has notified the Philippines that it intends to institute the requirement for VHT treatment on Philippine mango exports as well, following the interception of six shipments of mangoes that contained fruit flies. The requirement was scheduled to come into effect in September 2006. The Philippines is requesting that alternative measures be considered by the country for the removal of fruit flies, as VHT would imply a substantial increase in the production costs for exporters to China. Since Chinese importers do not tend to pay a high price for mangoes, it is not one of the priority destinations for exporters of the product. The increase in cost brought about by this planned requirement could result in an elimination of Philippine mango exports to China.

¹² During the peak season, an active processing plant may conduct up to three seven-hour VHTs a day.

¹³ Chemical found in insecticides used at farms. To lower the residue, it is recommended that farmers switch to less toxic pesticides. These, of course, are more expensive.

Table 9. Philippine exports facing NTMs in Korea.

HS product code (\$ '000)	Description	NTM code	Trade value
20714	Of fowls of the species <i>Gallus domesticus</i> :-- Cuts and offal, frozen	1400	327.96
40229	In powder, granules or other solid forms, of a fat content, by weight, exceeding 1.5 % :-- Other	1400	19.999
60290	Other	1400	322.16
70960	Fruits of the genus <i>Capsicum</i> or of the genus <i>Pimenta</i>	1400	2.85
100510	Seed	1400	0.032
100590	Other	1400	1.669
120999	Other	1400	4.95
121220	Seaweeds and other algae	1400	1198.605
121490	Other	1400	0.72
160249	Of swine :-- Other, including mixtures	1400	2.774
160250	Of bovine animals	1400	23.784
170211	Lactose and lactose syrup :-- Containing by weight 99 % or more lactose, expressed as anhydrous lactose, calculated on the dry matter	1400	0.025
180690	Other	1400	0.708
190190	Other	1400	35.279
200919	Orange juice :-- Other	1400	0.974
200930	Juice of any other single citrus fruit	1400	9.402
210690	Other	1400	170.253
220290	Other	1400	0.548
230890	Other	1400	608.266
230990	Other	1400	719.599
Total trade value			3,450.56
Percent of total Philippine exports to Korea (Percent of total agricultural exports)			0.25% (1.96%)

Wood Packaging

Products are not the only targets of specific processing requirements. In particular, wood packaging material such as wooden crates or pallets also face an additional requirement, i.e., fumigation prior to shipment. The process must be certified by the Bureau of Plant Industry, which sends an observer from the agency to oversee the procedure. The BPI issues a certification of the fumigation as well. Since all accredited fumigators are currently based in Manila, the transportation costs add to the exporters' financial burden.

Comparing East Asia and the US

Interestingly, while the sundry variety of NTMs already complicates matters for exporters, a different set of NTMs dominates one country or region as opposed to another, providing another point of contrast and comparison between nations and country groupings. For instance, while recent issues in East Asia tend to be concerned primarily with sanitary and phytosanitary standards, such as special treatments required to kill pests, or lower-than-standard MRLs, many of the problems encountered by exporters in the Western world deal

with other technical barriers such as labeling and packaging— areas that have less to do with science and may appear somewhat less consequential.

Fiesta Brands' experience is a case in point. A long-time manufacturer and exporter of a variety of coconut products, the company's exports were barred entry to the US for almost two months due to a technicality otherwise inconsequential had the oversight occurred elsewhere. More specifically, US authorities detained a shipment of Fiesta Brand's products because the label did not contain an exact address. In the Philippines, especially in far-flung regions of the country, exact addresses are not used and a nearby road, highway or general district is often sufficient to identify one's location. In years past, the company was allowed access by simply identifying a particular highway as its plant's official address in Misamis Oriental. Although the company tried to explain that no address had actually been assigned to the plant, US authorities were adamant. To gain entry, the company was forced to request for an official address from the Philippine government—a process which took nearly two months to complete.

Domestic Requirements for Exporters: Certification Process in the Philippines

To assure foreign countries that their products meet specific requirements, exporting companies must submit certain certifications prior to engaging in trade, as well as attach particular certificates with every shipment they send. Majority of these certifications are traditionally issued by the appropriate bureaus under the Department of Agriculture or the Department of Health. The Phytosanitary Certificate and the Official Meat Inspection Certificate (OMIC) are just two examples of documentations which plant and animal product exporters must obtain.

Phytosanitary Certificate. This is issued by the Quarantine Division of the Bureau of Plant Industry (BPI) for every shipment of plant products leaving the country. This certificate is not a standard form. Rather, it is customized based on the requirements of the importing countries. For this reason, exporters must acquire an import permit from their intended destination country first before seeking the certification. The permit will contain the specific country requirements

(e.g., specific treatments, laboratory testing) for the specific product, which the BPI will check and certify for compliance.¹⁴ Aside from the import permit, the issuing officer also uses the United Nations Food and Agriculture Organization (FAO) Digest of Plant Quarantine Regulations as a primary reference. Regularly updated by the International Plant Protection Convention, the digest contains the rules and regulations of each country regarding the importation of different commodity classes of plant material. The fee for the certificate is dependent upon the volume of shipment.

Attached to the Phytosanitary Certificate are laboratory results from the National Pesticide Analytical Laboratory (NPAL). This laboratory conducts testing for chemical residues in plant products. Per the Codex Alimentarius, the internationally accepted set of standards for plant products, five kilograms of each product from every shipment are brought to the laboratory for analysis. Both the National Capital Region main laboratory and its satellite laboratory in Davao City are capable of conducting analyses of export material. After testing, the NPAL issues its own certificate listing its specific findings. The residue detection process normally takes 24 hours, and exporters are advised to return to the NPAL two days after submitting their samples for the results and certification. The standard fee for a multi-residue analysis exceeds US\$100.¹⁵

Official Meat Inspection Certificate (OMIC). This is issued by the Import-Export Division of the National Meat Inspection Service (NMIS) of the Bureau of Animal Industry (BAI). The document vouches for the quality and safety of meat and meat products, as well as their fitness for human consumption.

Before an OMIC may be issued, however, the Plant Operation Inspection Division (POID) of the NMIS must first certify the individual products of the exporter. Because the Hazard Analysis

¹⁴ For countries and products without an import permit, the BPI conducts a one-hour ocular inspection, checking for the cleanliness of the sample and the apparent lack of signs of pests or diseases.

¹⁵ Aside from Japan which, as previously mentioned, requests specific analysis of chlorpyrifos and cypermethrin content, all other countries look for a standard set of laboratory tests on 14-24 pesticides based on Codex standards.

Box 1. Procedures to obtain a phytosanitary certificate.

1. Exporter obtains import permit via importing partner in foreign country; exporters of specific products obtain other necessary certifications. (e.g., CITES from DENR)



2. Exporter submits a request for a Phytosanitary certificate to the Quarantine Division of the BPI.



2a. Required treatments are carried out with BPI supervision.



3. Product samples are brought to the National Pesticide Analytical Laboratory for testing. (2 days)



4. NPAL Certificate is brought to the Quarantine Division.



5. If treatment process is undertaken properly and no pests are found, the Quarantine Division issues a Phytosanitary certificate and attaches the laboratory results.

Obtaining a Phytosanitary Certificate

Critical Control Point (HACCP) Program was adopted by the World Health Organization and the Food and Agriculture Organization as the basic SPS standard for all food producers in every country, the Department of Agriculture deemed it mandatory that all 'AAA' accredited meat establishments¹⁶ receive HACCP certification. To obtain the HACCP, the establishments must submit the requisite documentation packets regarding their history of production processes. They also face an on-site audit conducted by the POID to ensure that they are compliant in all the critical areas. The HACCP Programs of these plants must have a designated coordinator, with an appropriately trained staff to facilitate the necessary practices.¹⁷ On-site inspections are conducted twice a year. The HACCP Certification is valid for one year and costs more than US\$100.

To ensure continued compliance, a POID officer oversees the manufacturing processes occurring at inspected plants. After each process, a Meat Inspection Certificate, apart from the OMIC, is passed on to the Import-Export Division (IED) of the NMIS. Official certification for export is partly based on this certificate.

Besides HACCP, laboratory analysis is also required for OMIC. In this case, per International Standards Organization (ISO) regulations, ten samples per product per shipment must be submitted to the Laboratory Services Division of the NMIS. The main laboratory and its satellites labs located in the different regions of the country are accredited to conduct these tests. A five-day analysis is normally undertaken, after which results are forwarded to the IED to be used in the issuance of the OMIC. Some countries require these results

¹⁶ An 'AAA' accreditation for a meat establishment verifies that its products are export quality. It also means that the plant is already certified as to Good Manufacturing Practices (GMP)/ Sanitation Standard Operating Procedures (SSOP).

¹⁷ The eight key areas of SSOP include the safety of water, condition/cleanliness of food contact surfaces, prevention of cross-contamination, handwashing, sanitizing facilities, protection of food adulteration, proper labeling and storages, control of employee health condition, and exclusion of pets.

Box 2. Procedures to obtain an official meat inspection certificate.

1. Exporter applies for accreditation of specific meat products.



2. Plant Operation Inspection Division conducts an on-site audit of the plant. If it passes the requirements, POID issues an HACCP Certificate for specific products.



3. Exporter applies for an OMIC with the Import-Export Division of the



3a. A Meat Inspection Certificate verifying standards compliance is issued by the POID representative at the plant.



2a. A POID representative is installed at the plant to ensure continued HACCP Compliance.



4. Samples from the specific shipment are submitted for laboratory



5. The Laboratory Services Division forwards its results to the IED. If requirements are met, an OMIC is issued.

Obtaining an Official Meat Inspection Certificate

to be attached to the rest of the documentation. The laboratory charges PhP350 per sample (or P3,500 per product) analyzed.

An OMIC is normally issued one to two days after laboratory results come in. A single-use certificate costs PhP75.

In summary, there are a number of certification procedures exporters have to comply with to be able to export their products abroad. The OMIC and Phytosanitary certificates are only two examples of these procedures. Some of these certificates have to be obtained each time the exporters make shipments, while others are done only periodically (annually or once in two years) (Table 10).

Estimating Certification Cost

How much do these certification requirements add to the cost of a regular shipment? Take a prospective exporter of processed meat products to Japan, for example. In order to export, the firm must first obtain a Hazard Analysis Critical Control Point

certification from the National Meat Inspection Service. The certificate itself costs PhP5,000 for one year of operation, assuming its plant needs no major upgrades in order to meet the requirements of HACCP. Once this is obtained, the per shipment procedures begin. The firm must take ten samples of each product it would like to export and bring this to the NMIS laboratory, where they must be left for analysis anywhere between five and fourteen days. Apart from the cost of production of these samples, an additional financial expense of PhP350 per sample is required. Assuming that the exporter has two different products, the cost of laboratory testing would amount to PhP7,000 (PhP350 x 10 samples x 2 products). Once the results are obtained, the exporter must now get an Official Meat Inspection Certificate. An OMIC is issued for every product, so the firm must submit a request for two separate OMICs. Since each OMIC costs PhP75, this step adds PhP150 to the total costs for compliance. Finally, an International Veterinary Certificate must be attached to the set of documents to be sent

Table 10. Certifications, by frequency of issue.

Per shipment	Per set time period
Phytosanitary Certificate	HACCP Accreditation (every year) ¹⁸
Official Meat Inspection Certificate	Halal Certificate (every year)
International Veterinary Certificate	ISO Certificate (once every 2-3 years)
CITES Permit	GMO Certificate *
Bacteriological Certificate	

- The GMO Certificate is issued only once, and does not have to be replaced or renewed unless a firm changes its GMO practices.
- The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) Permit certifies that the export products are neither endangered nor wild-collected.

with the shipment. This is another PhP100. The per shipment cost of certification thus amounts to more than PhP7,250 for a two-commodity exporter. Considering that some firms export as many as twenty products per shipment, the expenses do pile up.

Fish exporters, for their part, face laboratory testing for health certificate processing by the Bureau of Fisheries and Aquatic Resources. The cost of this amounts to PhP7,425 (PhP330 x 9 samples x 2.5 fcls). This represents 1 percent of the sales value of one container (estimated to be about PhP720,000).

A representative mango exporter, meanwhile, tags quality control and laboratory testing as representing 5 percent of its production costs. This includes payments for the phytosanitary certificate, testing fees set by the National Plant Analytical Laboratory¹⁹, hotel expenses, overtime payments and allowances for the Japanese and Korean inspectors, and overtime payment for the BPI quarantine personnel.

Of course, these expenses are essentially only financial costs incurred primarily for certification. That they cost little in terms of percentage of cost of shipment and hence do not appear ‘bothersome’

Box 3. Cost of domestic certification compliance of a meat exporter.

Total sales value* of a standard two-product shipment of meat to Japan	PhP 300,000
Cost of per-shipment NTM-related expenses	
Laboratory Testing (PhP350 x 10 samples x 2 products)	PhP 7,000
OMIC (PhP75 x 2 products)	150
International Veterinary Certificate	100
HACCP Certification (PhP5000/No. of shipments per year)	16
Total Cost	PhP 7,266
Share of additional NTM cost in sales value (Cost/Sales value)	2.4%

¹⁸ Some private standards certification firms issue HACCP Certificates with a similar validity period as ISO Certificates (2-3 years). However, for an OMIC to be issued, a HACCP Certification specifically from the NMIS must be in the possession of the meat establishment wishing to export its products, and the NMIS Certificate is valid for only one year.

¹⁹ However, the cost of the samples tested is absorbed by the importer.

to exporters does not necessarily imply that NTMs are inconsequential to agriculture exports. What may not be captured is the hidden cost caused by stringent NTMs on firms that are effectively precluded from exporting to these countries because of their lack of ability to upgrade their facilities to satisfy the health and standards requirements. That is, the large expenses, usually reaching millions of pesos, for capital expenditures necessary for a firm to qualify for standards certifications—which may be the ultimate determinants of whether a particular firm will be able to enter the export arena or not—is not taken into account from the above cost estimation.

These capital costs naturally vary from firm to firm, as they are dependent on each one's initial conditions (i.e., whether they already have modern machines and facilities or completely outmoded production processes), capacity for creative thinking, and the specific requirements of the primary export market. These are not captured in the above-listed cost of compliance, as these are sunk costs.

Most regular out-of-country costs are incurred not by the exporter from the Philippines but by the foreign importer. The importer pays for the authorization documents as well as the cost of inspection or sample evaluation when the products reach the importing country. The only time that an exporter would incur extra-territorial NTM-related costs is when the product is rejected by the importing country. If the product must be destroyed, the exporter would face charges for the disposal procedure²⁰, and, depending on the contract and specific circumstances, may also face penalties from the importer associated with non-delivery or non-compliance. If the exporter would prefer to have the product returned to the Philippines, he would be responsible for the cost of freight. These out-of-country costs are difficult to estimate because: 1) the refusal of Philippine goods does not happen with predictable regularity; 2) the required action by importing countries varies, depending on the nature of the so-called 'violation'

as well as on the type of agricultural goods. For instance, punitive action can range from outright destruction of goods to simple time delays, which nevertheless entail additional cost, in the release of the commodity from customs.

SUMMARY AND CONCLUSIONS

Exporters' Response

Despite the hassle and cost of the certification process, conversations with exporters reveal that, for the most part, they are willing and able to cope with the existing requirements of importing countries. While they report increased costs brought about by the necessity of compliance, they acknowledge that, at present, the profits from exporting still outweigh the costs. This, however, may not hold true for countries where margins are much smaller, like the China fruit export market. As earlier discussed, the expected fumigation requirement for mangoes in China may render exporting unprofitable.

To the extent that countries follow international standards and apply them equally to all countries, the exporters are willing to learn to comply and adjust. In other cases, some exporters request for compromises, and trading partners are flexible enough to provide them appropriate notification and adequate time to adjust to new standards.

What is more burdensome, in fact, are the "trade facilitating" expenses within the Philippines. These come in a variety of forms such as tips to government employees or outright bribes to accelerate the customs processing of their papers. Unfortunately, this practice has become part of the cost of doing business in the Philippines.

Implication on Small-Scale Industries

Despite the stated ability by industry players to adjust to NTM requirements, it must be acknowledged that the firms interviewed were primarily old hands at exporting, and therefore are comfortable with the current situation because they

²⁰ While no specific example could be gleaned for Europe, Monde Nissin reports that it had to spend PhP700,000 solely for the disposal of one shipment to Japan that did not meet the requirements.

have had years to adapt to the vagaries of the export market. Fiesta Brands, Diamond Star and Monde Nissin, for example, are able to cope with the additional and varying standards of other countries, but they are relatively large and well-established firms in the food exports business. Fiesta Brands has been in operation since 1986, while Diamond Star has had 18 years' worth of experience in exports.

However, not all firms are similarly endowed. In fact, among the 22,500 food and beverage processors in the Philippines, 99% are cottage, small and medium enterprises²¹ (dela Pena, Blaha and Avila 2005). Unable to afford the technological and manpower requirements of compliance, these subsets may find it more difficult to deal with stringent non-tariff measures. Even in the simple matter of laboratory testing, the fixed quantity of required samples and the costs of the tests and certificates alone will be more draining on smaller firms that export limited quantities per shipment than on established firms that are able to maximize and fill up entire containers every shipment. The result may be the marginalization of these smaller establishments or even their complete inability to gain market access.

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²¹ A cottage enterprise is one whose total assets are valued between PhP150,000 and PhP 1.5 million. The Magna Carta for Small Enterprises (Republic Act 6977, amended by Republic Act 8289) defines a small enterprise as having 10-99 employees and PhP1.5 million to PhP15 million in assets, while a medium enterprise is one that has 100-999 employees and PhP15 million up to PhP100 million in assets.

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Appendix A.

UNCTAD CODING SYSTEM OF TRADE CONTROL MEASURES

Table 11. UNCTAD coding system of trade control measures.

Code	Description
1000	TARIFF MEASURES
1100	Statutory Custom Duties
1200	MFN Duties
1300	GATT Ceiling Duties
1400	TARIFF Quota Duties
1410	Low duties
1420	High duties
1500	Seasonal Duties
1510	Low duties
1520	High duties
1600	TEMPORARY REDUCED DUTIES
1700	TEMPORARY INCREASED DUTIES
1710	Retaliatory duties
1720	Urgency and safeguard duties
1900	PREFERENTIAL DUTIES UNDER TRADE AGREEMENTS
1910	Interregional agreements
1920	Regional and sub-regional agreements
1930	Bilateral agreements
2000	PARA-TARIFF MEASURES
2100	CUSTOMS SURCHARGES
2200	ADDITIONAL TAXES AND CHARGES
2210	Tax on foreign exchange transactions
2220	Stamp tax
2230	Import license fee
2240	Consular invoice fee
2250	Statistical tax
2260	Tax on transport facilities
2270	Taxes and charges for sensitive product categories
2290	Additional charges n.e.s.
2300	INTERNAL TAXES AND CHARGES LEVIED ON IMPORTS
2310	General sales taxes
2320	Excise taxes
2370	Taxes and charges for sensitive product categories
2390	Internal taxes and charges levied on imports n.e.s.
2400	DECREED CUSTOMS VALUATION

2900	PARA-TARIFF MEASURES N.E.S.
3000	PRICE CONTROL MEASURES
3100	ADMINISTRATIVE PRICING
3110	Minimum import prices
3190	Administrative pricing n.e.s.
3200	VOLUNTARY EXPORT PRICE RESTRAINT
3300	VARIABLE CHARGES
3310	Variable levies
3320	Variable components
3330	Compensatory elements
3340	Flexible import fees
3390	Variable charges n.e.s.
3400	ANTIDUMPING MEASURES
3410	Antidumping investigations
3420	Antidumping duties
3430	Price undertakings
3500	COUNTERVAILING MEASURES
3510	Countervailing investigations
3520	Countervailing duties
3530	Price undertakings
3900	PRICE CONTROL MEASURES N.E.S.
4000	FINANCE MEASURES
4100	ADVANCE PAYMENT REQUIREMENTS
4110	Advance import deposit
4120	Cash margin requirement
4130	Advance payment of customs duties
4170	Refundable deposits for sensitive product categories
4190	Advance payment requirements n.e.s.
4200	MULTIPLE EXCHANGE RATES
4300	RESTRICTIVE OFFICIAL FOREIGN EXCHANGE ALLOCATION
4310	Prohibition of foreign exchange allocation
4320	Bank authorization
4390	Restrictive official foreign exchange allocation n.e.s.
4500	REGULATIONS CONCERNING TERMS OF PAYMENT FOR IMPORTS
4600	TRANSFER DELAYS, QUEUING
4900	FINANCE MEASURES N.E.S.
5000	AUTOMATIC LICENSING MEASURES
5100	AUTOMATIC LICENCE
5200	IMPORT MONITORING
5210	Retrospective surveillance
5220	Prior surveillance
5270	Prior surveillance for sensitive product categories
5700	SURRENDER REQUIREMENT
5900	AUTOMATIC LICENSING MEASURES N.E.S.
6000	QUANTITY CONTROL MEASURES
6100	NON-AUTOMATIC LICENSING
6110	License with no specific ex-ante criteria
6120	License for selected purchasers
6130	License for specified use
6131	Linked with export trade
6132	For purposes other than exports
6140	License linked with local production
6141	Purchase of local goods
6142	Local content requirement
6143	Barter or counter trade
6150	License linked with non-official foreign exchange
6151	External foreign exchange
6152	Importers' own foreign exchange

6160	License combined with or replaced by special import authorization
6170	Prior authorization for sensitive product categories
6180	License for political reasons
6190	Non-automatic licensing n.e.s.
6200	QUOTAS
6210	Global quotas
6211	Unallocated
6212	Allocated to exporting countries
6220	Bilateral quotas
6230	Seasonal quotas
6240	Quotas linked with export performance
6250	Quotas linked with purchase of local goods
6270	Quotas for sensitive product categories
6280	Quotas for political reasons
6290	Quotas n.e.s.
6300	PROHIBITIONS
6310	Total prohibition
6320	Suspension of issuance of licenses
6330	Seasonal prohibition
6340	Temporary prohibition
6350	Import diversification
6370	Prohibition for sensitive product categories
6380	Prohibition for political reasons (embargo)
6390	Prohibitions n.e.s.
6600	EXPORT RESTRAINT ARRANGEMENTS
6610	Voluntary export restraint arrangements
6620	Orderly marketing arrangements
6630	Multiform arrangement (MFA)
6631	Quota agreement
6632	Consultation agreement
6633	Administrative co-operation agreement
6640	Export restraint arrangements on textiles outside MFA
6641	Quota agreement
6642	Consultation agreement
6643	Administrative co-operation agreement
6690	Export restraint arrangements n.e.s.
6710	Selective approval of importers
6700	ENTERPRISE-SPECIFIC RESTRICTIONS
6720	Enterprise-specific quota
6790	Enterprise-specific restrictions n.e.s.
6900	Quantity Control Measures n.e.s.
7000	MONOPOLISTIC MEASURES
7100	SINGLE CHANNEL FOR IMPORTS
7110	State trading administration
7120	Sole importing agency
7170	Single channel for sensitive product categories
7200	COMPULSORY NATIONAL SERVICES
7210	Compulsory national insurance
7220	Compulsory national transport
7900	MONOPOLISTIC MEASURES N.E.S.
8000	TECHNICAL MEASURES
8100	TECHNICAL REGULATIONS
8110	Product characteristics requirements
8120	Marking requirements
8130	Labeling requirements
8140	Packaging requirements
8150	Testing, inspection and quarantine requirements
8160	Information requirements

8170	Requirement relative to transit
8180	Requirement to pass through specified customs
8190	Technical regulations n.e.s.
8200	PRE-SHIPMENT INSPECTION
8300	SPECIAL CUSTOMS FORMALITIES
8400	RETURN OBLIGATION
8900	TECHNICAL MEASURES N.E.S.