CHAPTER 13
Sanitary and Phytosanitary Measures
S. Stone and F. Casalini
CHAPTER 13
Sanitary and Phytosanitary Measures
S. Stone* and F. Casalini†

* Organisation for Economic Co-operation and Development, Paris, France
† Graduate Institute of International and Development Studies, Geneva, Switzerland

CONTENTS

13.1. WHY DO SPS MEASURES MATTER? 369
   13.1.1 Methodology 371

13.2. SPS PROVISIONS FOUND IN PTAs 372
   13.2.1 General 372
   13.2.2 SPS and WTO 373
   13.2.3 Standards 374
   13.2.4 Risk assessment 377
   13.2.5 Audits/control inspection 378
   13.2.6 Transparency 379
   13.2.7 Institutions 380
   13.2.8 International regulatory cooperation more generally 381
   13.2.9 Other areas of cooperation 381

13.3. ANALYSIS 381
   13.3.1 Consideration of WTO 382
   13.3.2 Integration 384
   13.3.2.1 Standards 384
   13.3.2.2 Risk assessment 385
   13.3.2.3 Audit/controls inspection 385
   13.3.3 Transparency 386
   13.3.4 Institutions 387
   13.3.5 Further cooperation 387

13.4. CONCLUSIONS 388

ACKNOWLEDGMENTS 389

REFERENCES 390
13.1. WHY DO SPS MEASURES MATTER?

Food and agriculture exporters face a variety of costs when accessing markets for their goods. These costs go beyond tariffs and extend to a number of areas, including the cost of complying with a variety of regulatory measures and standards set by both public institutions and private organizations. While tariffs are generally published in national schedules and thus easily identified and quantified, these non-tariff measures (NTMs) can be more difficult to navigate and can have a much higher ultimate cost to suppliers. Among the most significant of the NTMs for food and farm products are sanitary and phytosanitary (SPS) measures.

While SPS measures help protect producers and consumers (along with animals and plants) against certain health and safety risks, they are not always defined or implemented in an efficient or truly transparent manner. Procedures put in place under the WTO and, importantly for this work, preferential trade agreements (PTAs), have helped increase transparency. The WTO’s SPS Agreement provides a process through which member governments can work together to put forward more effective ways to enact and implement SPS measures. PTAs can play an important role in this process as well. Indeed, evidence has shown that, on average, PTAs can reduce the costs of SPS measures across trading partners.¹

There are several ways that PTAs can contribute to the reduction of trade costs associated with SPS measures. First, the more PTAs streamline SPS requirements, the lower the compliance costs. Second, by providing better information on foreign products to consumers, PTAs tend to reduce the home bias among member countries. This translates into an increase in the demand for products covered by PTAs, thereby increasing output and potentially lowering the price impact of SPS measures. Finally, PTAs reduce protectionist-motivated distortions in the design of NTMs overall, including SPS.

PTAs can also influence the development of SPS matters in a broader sense, by providing a structure within which to develop further trade-liberalizing agendas. This is done through provisions such as technical cooperation, sharing of information regarding the development of standards or regulatory approaches, or even joint development of standards and regulations. Indeed, there is evidence that mutual recognition of conformity assessment procedures within PTAs significantly lowers the trade costs associated with SPS measures.²

Recent research³ has found that including specific cooperative mechanisms in a PTA can have a large impact on its ability to increase trade flows, and that these mechanisms have the largest

---

¹ Cadot and Gourdon 2016.
² Cadot and Gourdon 2016.
³ Disdier et al. 2019.
impact when they are legally enforceable. This work also found that SPS-related mechanisms promoting some level of regulatory cooperation are more significant than measures promoting cooperation on technical barriers to trade (TBT). SPS measures with legal enforceability and transparency have the strongest and most positive impact on trade flows.

Of the large body of literature showing that SPS measures can have a significant impact on trade, more recent studies have found that the form in which SPS measures are incorporated into trade agreements also matters. However, much of this work is based on broad aggregate measures of SPS provisions and on a sub-sample of trade agreements. Comparisons across different agreements or across different SPS measures in agreements can be problematic. Thus, observations or conclusions often differ depending on the sample or time period examined. In order to maximize the performance of trade agreements, more detail is needed on exactly which provisions are most effective over time and in what circumstances. The work presented in this chapter is a step toward helping to complete this picture.

The chapter outlines the methodology of documenting (i.e., coding) SPS measures within SPS provisions or chapters in all preferential trade agreements notified to the WTO over the past 5 decades, through 2016. The coding does not include any private standards. This work is part of the World Bank’s Deep Integration project, which aims to map the content of various disciplines across the entire set of PTAs to generate a new deep database on trade agreements. The coding presented here builds on and complements other efforts to map SPS provisions in PTAs, and efforts currently underway by the World Trade Institute (WTI).

The chapter presents the coded measures and explanations of the process. It then provides some summary statistics and analysis of trends that result from that coding. This work goes beyond earlier efforts by increasing the granularity of measures coded, with the intention of providing the necessary information to pick up more precisely what types of provisions within SPS chapters are important in reducing trade costs. The coding attempts to capture whether and how strongly certain issues are promoted in the agreements, as well as allowing for cross-referencing regarding the context in which agreements mention certain issues - so, for example, that it is possible to see whether international standards are referenced as part of standards as well as part of risk assessment, and to what degree these provisions are binding. In addition, the provisions are coded so that future researchers attempting to gain insight into the degree to which cooperation on certain issues, such as regulation, are included in PTAs, will be able to cross-reference across the full set of agreements. Finally, the coding applies only to those issues covered in individual SPS chapters and does not cover SPS-related issues contained in other chapters.

---

4 Two recent efforts include Crivelli and Groeschl 2016 and Grant and Arita 2017.
5 Notably, Jackson and Vitikala 2016 and Piermartini and Budetta 2009.
6 See https://www.wti.org/research/res/ for more information.
SPS measures are applied to protect the health of a country’s citizens and ecosystems. According to Annex A of the WTO’s SPS Agreement, a sanitary and phytosanitary measure is any measure applied to:

- protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;
- protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
- protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
- prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

The WTO Agreement states that SPS measures cover all relevant laws, decrees, regulations, requirements and procedures including, inter alia, end product criteria; processes and production methods; testing, inspection, certification, and approval procedures; quarantine treatments, including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labeling requirements directly related to food safety. It encourages the use of international standards and establishes a procedure to monitor the process of international harmonization.

### 13.1.1 Methodology

This chapter draws upon the methodology of past analyses regarding agriculture and TBT provisions contained in PTAs. The database consists of all PTAs notified to the WTO, including annexes and side letters, when available. This covers a total of 283 agreements, of which 276 have been coded. Questions encompass the following broad categories:

- Does the PTA contain SPS provisions?
- Does the PTA affirm or reference the WTO SPS Agreement generally?
- Does the PTA refer to or replicate the definition and or rules of SPS measures contained within the SPS Agreement?
- Does the PTA contain details on the SPS provisions concerning standards, transparency, and risk assessment?
- To what degree does the PTA encourage or require cooperation?

---

7 See [https://www.wto.org/english/tratop_e/sps_e/sps_e.htm](https://www.wto.org/english/tratop_e/sps_e/sps_e.htm).
8 SPS Agreement, Annex A, paragraph 1.
10 There are two agreements that include several bilateral treaties under broader headings (Chile–Central America, and Panama–Central America). Thus, eight treaties are redundant and have not been coded, leaving a total of 276 agreements.
Each PTA is double-coded by separate researchers and results are cross-checked. The following section details how the provisions are coded for SPS chapters. Each agreement is treated as a separate entity and no attempts are made to cross-reference provisions within an agreement, nor across agreements. This is left to the discretion of future researchers. In addition, no attempts are made to judge the quality of a provision (only to note legal enforceability, as described below) nor the degree to which any provision is implemented.

In general, the language used in the agreement is recorded as closely as possible. For example, if mutual recognition is referenced in standards, and equivalence is referenced in risk assessment, these are coded as different things. While in reality, these may be referencing the same procedure, the language the negotiators ultimately place in the agreement is respected and recorded.

13.2. SPS PROVISIONS FOUND IN PTAs

13.2.1 General

The PTAs that include SPS provisions cover a variety of different substantive SPS areas. These range from entire chapters covering a comprehensive set of issues to agreements that contain a simple one-line reference to the WTO SPS Agreement. Most of the PTAs do not include a number of WTO SPS provisions nor detailed coverage of all the areas of the WTO SPS agreement. For example, provisions on standards and equivalence are present in many of the dedicated SPS chapters, but control and inspection provisions of the WTO Agreement are referred to less often.

The project undertook coding of the complete list of PTAs as notified to the WTO as well as 30 additional Spanish language agreements. In order to be as consistent as possible with existing work and to contribute to the Deep Integration project, which codes across a number of different provisions, this work was informed by other SPS data collection efforts, notably the World Trade Institute and previous efforts undertaken by the WTO. The WTI has developed a new dataset, the Design of Trade Agreements (DESTA) database, which includes information on more than 620 PTAs across a number of provisions, including SPS. Much of the coding here uses concepts similar to those of these other efforts.

The scope of the exercise is limited to those provisions or topics covered within the SPS chapter. That is, if an issue such as dispute settlement is covered outside the SPS chapter, it is not coded here. This allows the differentiation of topics within the context of the overall agreement, and also ensures that issues covered outside the topic of, but related to, SPS are not double-counted. The only exception is if there is direct reference in the SPS chapter to another chapter or annex. In this case, the provision is coded as if it were included in the SPS chapter.

11 Jackson and Vitikala 2016; Piermartini and Budetta 2009.
The SPS chapters or provisions are coded across three basic areas:

- **Existence** is coded as a 1 if it is included in the agreement, 0 otherwise;
- **WTO** is coded as to whether the contents of the provision are consistent with the WTO SPS Agreement (WTO =), go beyond what is included in the WTO SPS Agreement (WTO +), or fall short of what is included in the WTO Agreement (WTO -); and
- **Enforceability** is rated on a scale of 1 to 3, where 1 is the weakest and 3 is the strongest.

Each chapter of the Deep Integration project analyzes its subject with respect to the level of enforceability. In the context of the SPS chapter, this is interpreted more in the context of the binding agreement. Thus, an article or provision within the chapter is assigned a number representing the level of enforceability based on the binding nature of the language included. The three levels are:

- When the provision is only suggested or noted. For example: “…shall endeavor to cooperate in the matters related to Harmonization.”\(^{13}\) This is considered the weakest level and is coded as (1);
- When the provision clearly expresses a desire to engage or is encouraged. For example: “Where necessary and possible, the Parties agree that the provisions concerning special and differential treatment in the WTO SPS and TBT agreements are applicable to the trade between the Parties to this Agreement, including Pacific States that are not WTO members.”\(^{14}\) This is coded as (2);
- When the language clearly indicates an obligation or understanding of undertaking action. For example: “Parties undertake to notify their proposed SPS measures to the contact points of the other Party at least sixty (60) days before they are adopted.”\(^{15}\) This is the strongest level and is coded as (3).

The existence of a dispute settlement mechanism is coded separately.

**13.2.2 SPS and WTO**

This section tracks the degree to which the WTO Agreement is recognized in a PTA. Each question is coded as a “1” if it is recognized and “0” otherwise. When reference is made to more general WTO agreements within the SPS chapter, or specific reference is made to agreements dealing with non-tariff measures and Article XX of the GATT, this is coded “1” as well.

| Does the agreement refer to the WTO SPS Agreement? |
| Does the agreement use the same definitions as the SPS Agreement? |
| Does the agreement use the same rules as the SPS Agreement? |
| Are any specific annexes of SPS Agreement adopted? |

---

\(^{13}\) Article 5-5, Japan-Mongolia 2016.

\(^{14}\) Article 36-4, EU-Papua-Fiji 2009.

\(^{15}\) Article 6-11, Peru-Singapore 2009.
The PTAs are examined for detailed references to the WTO SPS Agreement and are coded across the four questions posed above. The first question establishes whether reference is made to the WTO Agreement. Many treaties simply mention one provision of the SPS Agreement without adopting the whole agreement. These are usually treaties involving parties that are not members of the WTO. Similarly, many treaties simply reaffirm the rights and obligations under the WTO SPS Agreement.

### 13.2.3 Standards

The next series of questions are coded with respect to how standards are addressed in the SPS chapter. Again, they are coded “1” if these standards are addressed and “0” otherwise.

<table>
<thead>
<tr>
<th>Question</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do parties recognize the adaption to regional conditions (including regionalization, zoning and/or compartmentalization)</td>
<td></td>
</tr>
<tr>
<td>Do parties reference international standards?</td>
<td></td>
</tr>
<tr>
<td><strong>Equivalence</strong></td>
<td></td>
</tr>
<tr>
<td>- Is equivalence recognized?</td>
<td></td>
</tr>
<tr>
<td>- Are parties encouraged to take into account other parties’ standards when elaborating new standards?</td>
<td></td>
</tr>
<tr>
<td>- Is the burden of justifying non-equivalence on the importing country?</td>
<td></td>
</tr>
<tr>
<td><strong>Mutual Recognition</strong></td>
<td></td>
</tr>
<tr>
<td>- Is mutual recognition recognized?</td>
<td></td>
</tr>
<tr>
<td>- Is there a time schedule for achieving mutual recognition?</td>
<td></td>
</tr>
<tr>
<td><strong>Harmonization</strong></td>
<td></td>
</tr>
<tr>
<td>- Are there specified existing standards to which countries shall harmonize?</td>
<td></td>
</tr>
<tr>
<td>- Is the creation of concerted/regional standards referenced?</td>
<td></td>
</tr>
</tbody>
</table>

The coding attempts to capture the degree to which an agreement distinguishes between standards that are existing or new; international, regional, or domestic; or whether the agreement intends to develop new standards based on specific criteria. At the same time, the coding attempts to capture the nature of the cooperation on standards: equivalence, mutual recognition, or harmonization. Given that standards can often be used as a basis for regulation, the various forms in which standards are adopted in the PTA can still lead to the same regulatory outcome.

The WTO defines equivalence for SPS measures as each party recognizing other parties’ measures as acceptable even if they are different, so long as an equivalent level of protection is provided. The focus is generally on regulatory outcomes; for instance, in monitoring

---

16 For example: “Member states shall, upon request, enter into consultation, with the aim of achieving agreements on equivalence of SPS in accordance with the WTO SPS Agreement,” Article 16 SADC Seychelles Accession 2015.

17 For example: “The Parties reaffirm and incorporate in this Chapter their existing rights and obligations with respect to each other under the SPS Agreement,” Article 6-4, Peru-Singapore 2009.

18 [https://www.wto.org/english/glossary_e/glossary_e.htm](https://www.wto.org/english/glossary_e/glossary_e.htm).
the risk of disease or ensuring that a product is safe. Crucially, equivalence decisions are generally unilateral. Each party sets its own criteria for approval and terms of access.

By contrast, mutual recognition is not a unilateral action but an agreement between two or more parties. The WTO does not define mutual recognition, but it can be thought of as each party keeping its own regulations and legal decisions but recognizing and upholding regulations and legal decisions taken by the other partners. This means that a product that is lawfully produced in the exporting country must be accepted in the importing state (unless it is considered to be a risk to public health). For example, the regulator of one party can test a product for certain agreed-to standards and this would be recognized as adequate by the other party or parties in the agreement. This approach saves the product from being tested multiple times. However, it does not harmonize the rules or involve one party in recognizing the other parties’ standards as adequate.

The terms “equivalence” and “mutual recognition” are often used interchangeably. Parties can mutually recognize or consider as equivalent (a) the regulation itself; (b) the compliance techniques and/or risk assessment procedures, as well as the results of these processes; or (c) the regulation’s enforcement through judgments and arbitral awards.19

This work makes a distinction in the coding of equivalence and mutual recognition, depending on what term is used in the agreement (if the term mutual recognition is used, it is coded “1” for mutual recognition and “0” for equivalence). The rationale is that recognizing the equivalence of a standard is arguing that it is more or less the same, whereas mutual recognition contains no implied sameness, and more closely captures the idea of separate but equal. Equivalence focuses more on different standards that provide the same level of protection, whereas mutual recognition is less about the level of protection than about the product being lawfully produced in the exporting country and accepted in the importing country.20

Finally, for the purposes of this chapter, harmonization is coded when it is agreed that all parties apply the same standard or adopt the same regulation. This is a stronger interpretation of the term “harmonization” than in the WTO SPS Agreement (Article 3). The common standard referred to in the PTA can be an international standard defined by an international standard-setting organization or the national standard in force in one member country and adopted by others, or a regional standard that is commonly applied. The key difference is that there is only one standard at play.

20 For further discussion of mutual recognition versus equivalence, see von Lampe et al. 2016.
When several forms of cooperation are noted in an agreement, the prevailing approach is coded. For example, New Zealand-Singapore contains a mutual recognition provision that states “…where regulatory compliance is required and where there is equivalence of outcomes, each Party shall accept the standards of the other Party as equivalent to its own corresponding standards.” Thus, while the heading is “mutual recognition,” this provision is coded as equivalence.

The main factor in determining whether these provisions are WTO=, WTO+, or WTO- lies in the level of enforcement. Given that the WTO Agreement encourages and supports harmonization of standards, any provision which is coded “1” for having references to harmonization, mutual recognition, or equivalence is WTO=. However, if the reference contains binding levels of enforcement, it is coded “3” and WTO+. For instance, the Australia-Thailand agreement states that “…the Parties shall endeavor to work towards the harmonization of SPS measures,” and is coded WTO=. Other treaties define a stronger level of enforceability for SPS measures without explicitly mentioning the word “harmonization.” This is the case for the EAEU treaty, which is coded as level of enforcement 3 and WTO+. Other treaties explicitly refer to harmonization in accordance with international standards, with a level of enforceability that clearly tends toward harmonization and are coded as level 2 and WTO=.

The most common example of treaties that relate harmonization to regional standards is the case of the EU. Even countries not a part of the EU often harmonize their SPS measures in accordance with EU standards.

It is important to stress that not all the references to international standards entail a reference to harmonization. There are some treaties that reference international standards as the basis for equivalence, or for pest or disease-free areas. Further, treaties that reference international standards may differ in their level of enforceability. For instance, some treaties simply state that the parties shall “use as a reference international standards,” whereas others use a stronger

---

22 Article 6-05, Australia-Thailand 2015.
23 “Common veterinary requirements approved by the Commission shall be applied to goods and facilities subject to veterinary control,” Article 58-2, EAEU (italics added).
24 “To harmonize sanitary and phytosanitary measures as broadly as possible, the Parties shall base their sanitary and phytosanitary measures on international standards, guidelines and recommendations established by the Codex Alimentarius Commission (CAC), the World Organization for Animal Health (OIE).” Article 7-4, China-Switzerland 2008.
25 “Measures, concerning veterinary and phytosanitary control among the Parties, shall be harmonized on the basis of EU legislation.” Article 11-2, Turkey-Albania 2008.
26 “The Parties will perform consultations for the recognition of equivalence for SPS measures on the basis of international norms and recommendations.” Article 7-05, Peru-Mexico 2011.
27 “The decision to declare a pest disease free area will be made on the basis of the Zoosanitarian Code.” Appendix 4, Annex 4 Es 1-1, EU-Chile 2003.
28 “The Parties shall use international standards, or the relevant parts of international standards, as a basis for their technical regulations.” Article 51-01, China-Singapore 2003.
level of enforceability by stating that the SPS measures shall be applied “in conformity with international standards.”  

Some treaties use concepts other than harmonization, mutual recognition, or equivalence. This is the case for some agreements between the EU and Eastern European countries. For example, EU treaties with Georgia and Moldova use the notion of “approximation” rather than harmonization. There is no real consensus on the difference between these two ideas.  

For the purposes of this exercise, approximation is considered the same as harmonization but with a lower level of enforceability.

For most treaties, the level of enforceability for mutual recognition provisions is low. The parties often promote mutual recognition for SPS measures by “trying to explore the possibilities of…,” or agree that “…the committee shall consider, as needed, the developments of guidelines and recommendations for mutual recognition agreements.” Only two PTAs make explicit reference to a mutual recognition agreement.

Finally, most equivalence provisions also have a low level of enforcement. The parties simply agree to “give consideration to the recognition of equivalence if a request is raised by the other Party.”

### 13.2.4 Risk assessment

<table>
<thead>
<tr>
<th>Do the parties recognize that SPS measures are based on documented and scientific (if not available, objective) evidence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the participation of interested parties referenced?</td>
</tr>
<tr>
<td>- Is the burden of evaluating risk on the exporting country?</td>
</tr>
<tr>
<td>- Is there reference to international standards/procedures?</td>
</tr>
</tbody>
</table>

Under the WTO SPS agreement, members are permitted to assess the risk to human, animal or plant life, or health, and implement SPS measures accordingly. They are also permitted to ensure that the risk assessment techniques take into account those developed by relevant international organizations. This section reviews how risk assessment is addressed within the PTAs across the same enforcement levels as applied in the standards section. In most cases, the parties usually abide by the wording of the WTO. For instance, in the treaty between

---

29 “This agreement is applied to all the SPS measures that might affect trade … in conformity with the WTO SPS Agreement, Codex Alimentarius, IPPC, and OIE.” Article 6-01, Panama-Peru 2012.
30 For some jurists approximation and harmonization are synonyms and thus interchangeable. For others, there is a subtle, but noted, difference. For more information, see Čemalović (2015).
31 “Georgia shall continue to gradually approximate its sanitary and phytosanitary, animal welfare and other legislative measures as laid down in Annex IV to this Agreement to that of the Union.” Article 55, EU-Georgia 2014.
32 Article 8-6, Chile-India 2007.
33 Article 504-2ci, Canada-Colombia 2011.
34 Article 5-6-2, Malaysia-Australia 2013.
Mexico and Peru, the parties agree “The SPS measures will be based on scientific evidence…taking into account the norms, guidelines and recommendations of the relevant international organizations.” Other treaties establish a stronger level of cooperation by opening the door to participation of the parties in the risk assessment process of the other Party. However, those provisions are often accompanied by a low level of enforceability.

The coding goes beyond what is in the WTO to assess the degree to which the risk assessment process is open and transparent. Thus, questions on allowing other interested parties, such as technical experts or business or civil society, are included. However, these provisions rarely have a strong level of enforceability. Finally, reference to standards is noted. These could include the parties’ acceptance of the OECD’s Principles of Good Laboratory Practices (GLP) for purposes of assessment and other uses relating to the protection of humans and the environment.

13.2.5 Audits/control inspection

<table>
<thead>
<tr>
<th>Is there a provision on control inspection?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there provisions for pre-certification processes for exporter firms?</td>
</tr>
<tr>
<td>Are there provisions for advance rulings?</td>
</tr>
</tbody>
</table>

**Mutual Recognition**
- Is mutual recognition in force?
- Does the importing party have the right to audit the exporting party’s competent authorities, inspection systems, or production procedures?

**Equivalence**
- Is the burden of justifying non-equivalence on the importing country?

**Harmonization**
- Is the participation of interested parties referenced?
- Are there specified existing standards to which countries shall harmonize?
- Is the use or creation of regional standards promoted?
- Is the use of international standards promoted?

Similar to standards and risk assessment, the coding for audits and controls, as part of the more general area of conformity assessment, distinguishes among agreements that specifically reference mutual recognition, equivalence, and harmonization. In some agreements there is reference to the harmonization of inspection processes to a regionally defined standard.

---

35 Article 7–6–1, Peru–Mexico 2011.
36 “The Parties will give the opportunity to the other Party to make comments on their risk assessment procedure in the conditions defined by the importing Party.” Article 6–7–4, Pacific Alliance 2014.
37 “The Parties will give the opportunity to the other Party to make comments on their risk assessment procedure in the conditions defined by the importing Party.” Article 6–7–4, Pacific Alliance 2014.
38 For more information see http://www.oecd.org/chemicalsafety/testing/oecdsisonprinciplesofgoodlaboratorypracticelpandcompliance.htm.
39 Article -03d of the Nicaragua–Taiwan, China, agreement notes the intention to harmonize standards for control inspection.
Special attention is paid to which party bears the burden of proof relating to the audit or inspection process. For harmonization, equivalence, and mutual recognition, it is always coded as WTO+, since the WTO SPS Agreement does not have any provision on harmonization, equivalence, or mutual recognition of audit/control and inspection processes.\(^{40}\)

### 13.2.6 Transparency

<table>
<thead>
<tr>
<th>Question</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a transparency provision?</td>
<td></td>
</tr>
<tr>
<td>Is there a provision on exchange of information?</td>
<td></td>
</tr>
<tr>
<td>Is there a provision on electronic publication?</td>
<td></td>
</tr>
<tr>
<td>Is there a duty to translate the document into the language of the other party(ies)?</td>
<td></td>
</tr>
<tr>
<td>Is there a limitation to the obligation to notify, for reasons of law enforcement, public interest or commercial interest?</td>
<td></td>
</tr>
<tr>
<td>Do parties have to notify each other prior to the entry into force of a new standard or regulation?</td>
<td></td>
</tr>
<tr>
<td>Is there a specified minimum time period for comments?</td>
<td></td>
</tr>
<tr>
<td>Is there a derogation clause on the notification period for emergency?</td>
<td></td>
</tr>
<tr>
<td>Does the agreement allow the participation of interested parties of the other party in the development of standards?</td>
<td></td>
</tr>
<tr>
<td>Does the agreement specifically reference the participation of regulatory authorities of the other party in the development of standards?</td>
<td></td>
</tr>
</tbody>
</table>

The coding makes a distinction between transparency and exchange of information. Transparency is defined by the WTO as “the degree to which trade policies and practices, and the process by which they are established, are open and predictable.”\(^{41}\) Coding for the exchange of information attempts to capture agreements that go beyond what is specified in the Annex B of the WTO’s SPS Agreement. Thus, for cases where there is an identified and binding process to notify the other party of information on trade policies and regulations, that provision is coded WTO+.

PTA transparency provisions, as well, often integrate Annex B of the WTO SPS Agreement. Most agreements with this provision have a strong level of enforcement.\(^{42}\) Nevertheless, even though the transparency provision is an obligation stemming from the WTO SPS Agreement, some PTAs use language describing a lower level of enforceability. For instance, in the Chile and Mexico Agreement (two WTO members), the transparency provision does not contain language obligating the parties to any action in this area and thus is coded “1” and WTO-.

---

40 “From a date to be determined by the SPS Sub-Committee referred to in Article 65 of this Agreement, the Parties may agree on the conditions to approve each other’s controls referred to in Article 62(1)(b) of this Agreement with a view to adapt and reciprocally reduce, where applicable, the frequency of physical import checks for the commodities referred to in Article 60(2)(a) of this Agreement.” Article 63-5, EU-Georgia 2014.


42 “It shall also provide information on measures according to the provisions of Annex B to the ASPS, and shall implement the relevant adjustment.” Article 8-10-1a, Guatemala-Taiwan, China, 2006.
Those treaties stipulating an exchange of information have varying degrees of enforceability. Some PTAs discuss the potential to exchange information in the context of ad hoc committee decisions.\textsuperscript{43} For others, the parties clearly commit to an exchange of information on a more regular basis.\textsuperscript{44}

13.2.7 Institutions

<table>
<thead>
<tr>
<th>Administrative Bodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the parties establish SPS contact/enquiry points?</td>
</tr>
<tr>
<td>Do the parties establish an SPS committee?</td>
</tr>
<tr>
<td>Is there a fixed periodic meeting for the committee?</td>
</tr>
<tr>
<td>Is the SPS committee the designated first place for dispute resolution?</td>
</tr>
<tr>
<td>Does the SPS committee have open proceedings?</td>
</tr>
<tr>
<td>Do the parties establish a working group?</td>
</tr>
<tr>
<td>Is there a mechanism to issue recommendations?</td>
</tr>
<tr>
<td>Is there a mechanism mandated to issue administrative decisions?</td>
</tr>
<tr>
<td>Is a body for administering the agreement established?</td>
</tr>
<tr>
<td>Is recourse to dispute settlement for the SPS chapter disallowed?</td>
</tr>
</tbody>
</table>

The coding under Institutions attempts to capture when structures are created as a direct result of the treaty. Thus there is a distinction made between committees and other forms of organization that the chapter or provision establishes. If a working party is established, even if it is given responsibilities typically associated with a committee, but no committee is established, the coding is “0” for the line on committees and “1” for the establishment of a working group.\textsuperscript{45} Agreements that set up a distinct institutional structure, while rare, are coded WTO+. The coding also explores the degree to which a committee is open by noting the existence of a provision allowing the possible participation of other groups or public interaction.

This section also codes for the possibility of more formal interactions. For example, it asks whether there are provisions under which a body created by the treaty can issue decisions, and the level of commitment parties are expected to have to that decision.\textsuperscript{46} Finally, it codes for any specific instances that disallow the dispute settlement mechanism for SPS.\textsuperscript{47}

\textsuperscript{43} “The SPS Coordinators’ functions shall include, among others: facilitating information exchange so as to enhance mutual understanding of each Party’s SPS measures and the regulatory processes that relate to those measures and their impact on trade in goods between the Parties.” Article 5-7-1c, Costa Rica–Singapore 2003.

\textsuperscript{44} “The Parties, through the contact points, shall exchange information relevant to the implementation of this Chapter on a uniform and systematic basis, to provide assurance, engender mutual confidence and demonstrate the efficacy of the programs controlled. Where appropriate, achievement of these objectives may be enhanced by exchanges of officials.” Article 87, New Zealand–China 2007.

\textsuperscript{45} See, for example, China–Singapore, Article 55, “Joint Working Groups.”

\textsuperscript{46} See Chile–Malaysia, Article 6.6.

\textsuperscript{47} For example, the Canada–Republic of Korea agreement specifically disallows dispute settlement. “This Chapter is not subject to Chapter Twenty-One (Dispute Settlement).” Article 5.4.
### 13.2.8 International regulatory cooperation more generally

<table>
<thead>
<tr>
<th>Question</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a general IRC clause/common policy/standardization program (beyond trade-related objectives)?</td>
<td>Is there a provision on technical assistance?</td>
</tr>
<tr>
<td>Is there a provision for technical consultation?</td>
<td></td>
</tr>
</tbody>
</table>

A growing number of trade agreements have chapters on regulatory cooperation or other mechanisms to review issues in relation to the disciplines of the agreement. This section aims to identify mechanisms that support regulatory cooperation. For example, the Japan-Malaysia agreement states that the parties “… shall cooperate in the areas of SPS measures including capacity building, technical assistance and exchange of experts, subject to the availability of appropriated funds and the applicable laws and regulations of each Country.” While there is no specific research on the topic, it seems likely that such technical assistance or cooperation leads to or supports the development of cooperation across regulatory issues.

### 13.2.9 Other areas of cooperation

<table>
<thead>
<tr>
<th>Question</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a provision on labeling, marking, and packaging?</td>
<td></td>
</tr>
<tr>
<td>Is there a provision on traceability?</td>
<td></td>
</tr>
<tr>
<td>Is coordination for participation in international or regional accreditation agencies referenced?</td>
<td>Is testing data to be made available?</td>
</tr>
</tbody>
</table>

Some agreements contain clauses or provisions that pertain to a number of other forms of cooperation. For instance, more recent treaties are likely to include provisions on the possibility of making testing data available. Other treaties have specific provisions on coordinated or joint participation in international fora. However, those provisions usually have a low level of enforcement.

### 13.3. ANALYSIS

The following analysis is based on the coding undertaken as described above. It is worth repeating that only topics found within the SPS chapter or provision are coded. If a topic related to SPS is dealt with in a chapter or provision separate and distinct from SPS, it is not coded. For example, the Japan-Australia Economic Partnership cites the use of international

---

48 Japan-Malaysia, Article 70, paragraph 2, 2006.
49 “That Party shall provide to the exporting Party in writing full explanations and supporting data used for the determinations and decisions covered by this Article.” Article 71, EU-Ukraine 2014.
50 “…committee will have the function to consult on issues positions and agendas for meetings at the Commission of SPS measures and other relevant organizations’ Article 23-2b, Turkey-Chile 2011.
standards in TBT provisions, but not in its SPS chapter. Therefore, for SPS, the question *Do parties reference international standards?* has been coded as “0” or not found for SPS, for that agreement.

### 13.3.1 Consideration of WTO

The majority of the 276 PTAs contain a general exception similar to Article XX(b) of the GATT, enabling the parties to adopt measures necessary to protect human, animal or plant life, or health, subject to the requirement that such measures are not applied in a manner which would constitute arbitrary or unjustifiable discrimination or a disguised restriction on trade. Such health-driven general exception clauses are clearly linked to sanitary and phytosanitary protection.

Two hundred thirty-five, or 85 percent, of the 276 PTAs analyzed contain some form of SPS provision. Ninety-one of these agreements contain a detailed SPS chapter, while 85 agreements set out the parties’ SPS obligations in a more concise form, sometimes in one sentence. The SPS provisions found in the main text of the agreements are, in 42 agreements, complemented by annexes. Other instruments, such as Memorandums of Understanding, decisions, implementing arrangements, side letters, or joint statements, are also present in a number of agreements. With three exceptions, the preambles of the agreements analyzed do not explicitly reference SPS matters.

The trend (Figure 13.1) shows that an increasing share of agreements include SPS provisions. By the 2010s, almost 98 percent of all agreements entering into force included an SPS provision. Just over half of the agreements (158) make specific reference to the WTO SPS Agreement. Of those, most (142) include specific reference to the Agreement’s rules, while a lesser amount mention definitions (63) or specific annexes (57) of the WTO Agreement.

There is a strong distinction between countries, by level of development, over the inclusion of specific SPS provisions. Treaties are grouped into three broad categories: those where all parties are developing economies; those where at least one party is a developed economy (mixed); and those where all parties are developed economies (high income). Treaties between high-income members have the lowest incidence of SPS provision referenced, at 73 percent

51 See, for example, China-ASEAN.
52 See, for example, Southern Common Market (MERCOSUR).
53 See, for example, Trans-Pacific Strategic Economic Partnership.
54 See, for example, US-Australia.
55 See, for example, US-Morocco.
56 EC-OCT; Hong Kong SAR, China-New Zealand; US-Singapore.
of all agreements, versus developing treaties, where 90 percent include such a provision (Figure 13.2). However, while very few of the treaties are between high-income economies, the majority of these contain an SPS provision.

Harmonization\textsuperscript{57} and technical cooperation\textsuperscript{58} are other themes found rather frequently in these general SPS provisions, but the rest use these provisions to cover distinct issues. For example, the India-Nepal PTA limits itself to a reference to SPS certificates\textsuperscript{59} the Iceland-

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure13_1.png}
\caption{Number of agreements with SPS provisions over time}
\end{figure}

\textit{Source:} Deep Trade Agreements Database.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure13_2.png}
\caption{Number of agreements with SPS provisions, by income}
\end{figure}

\textit{Source:} Deep Trade Agreements Database.

\textsuperscript{57} See, for example, COMESA, Articles 112 and 132; and CEFTA, Article 12.

\textsuperscript{58} See, for example, East African Community (EAC), Articles 105 and 108; and EC-Chile, Article 24.

\textsuperscript{59} India-Nepal, Article II.6.
Faroe Islands agreement obliges the parties to establish border inspection posts, and many of the PTAs concluded by EFTA only state the general obligation to apply SPS regulations in a non-discriminatory manner and not to apply measures that have the effect of unduly obstructing trade. For example, EFTA-Colombia and EFTA-Peru state that the parties shall not use their SPS measures related to control, inspection, approval, or certification to restrict market access without scientific justification, and establish a forum for SPS experts.

13.3.2 Integration

13.3.2.1 Standards

Only a small share of agreements specifically address international standards. Of the 63 agreements that do, only 10 have binding provisions (Figure 13.3). The majority, or 65 percent, are best endeavors. There are 69 agreements where equivalence in SPS standards is recognized, but again, the majority, 47 agreements, require only that countries use their best endeavor. Reference to specific existing standards to which countries shall harmonize occurs in 37 agreements, while mutual recognition is noted in just 15 agreements. There are 33 PTAs that allow for the creation of regional or specific standards, but more than half of these 33 suggest that such a course be undertaken when possible and do not require action.

Figure 13.3: Standards cited by method and level of enforcement

Source: Deep Trade Agreements Database.

Standards provisions are rarely included in PTAs between high-income economies. The majority of these provisions, or 68 percent, are included in agreements between developing

---

60 Iceland-Faroe Islands, Article 6.
61 See, for example, EFTA-Israel, EFTA-Jordan, EFTA-Morocco, EFTA-West Bank and Gaza, EFTA-Colombia, and EFTA-Peru.
economies (Figure 13.4). When standards are included, they are most often addressed through equivalence provisions, but again, with low levels of commitment.

13.3.2.2 Risk assessment

Under provisions dealing with risk assessment, 56 PTAs specify that such procedures must be based on documented and scientific evidence, and the vast majority, over 85 percent, of these provisions are binding. In addition, most of these provisions are found in agreements among developing economies (58 percent). However, none of these 56 treaties reference the WTO Agreement. Only 26 agreements, less than 10 percent of the total number of agreements, include a reference to international standards under the area of risk assessment, and these cover the entire range of enforcement levels. Thus it may be inferred that the majority of PTAs rely on the WTO SPS Agreement to oversee risk assessment procedures, and it is only those countries that are not WTO members at the date of entry into force that specifically cite international standards in their treaties.

There are very few agreements (only 9) that allow the participation of interested parties in the risk assessment process. And of these 9, there are no high-income economies. Four agreements between developing economies and five involving a mix of income levels include such a provision. But an open risk assessment process is a relatively recent development, with all but one agreement dating from 2005 and 4 dating from 2014.

13.3.2.3 Audit/controls inspection

There are fewer than 50 agreements with a specific provision on audit/control procedures. However, the majority of those (42) are binding. Slightly more than half (27) are among
developing economies and 20 between economies of different income levels. There is a small but significant number of agreements, 34, that allow the importing country to audit the exporting party’s competent authorities, inspection systems, or production procedures. Again, the majority of these provisions, 70 percent, are binding and evenly distributed between developing and mixed agreements. While almost half (47 percent) the agreements that allow the importing country to perform audits came into effect in the 2010s, this provision is also found in agreements dating back to the 1980s.

### 13.3.3 Transparency

The importance of transparency in PTAs is well established, and is regularly noted as an important element of good regulatory practice. There are a relatively small number of agreements (64 in total) that contain a specific clause in the SPS chapter dealing directly with transparency. Given that many agreements do not have specific provisions dealing with transparency, this finding alone does not mean that transparency is not important in PTAs. Indeed, of the small number that have transparency provisions, the vast majority are binding (level 3 in Figure 13.5). More interesting, a larger number of SPS provisions within agreements (99) deal specifically with information exchange. When there is a provision for transparency or information exchange, it is almost always binding. There is also a small but significant number of agreements (18) that specifically stipulate the electronic exchange of information. However, in this case, it is often left to the best endeavors (level 2) of partners. As would be expected, the electronic exchange of information is a relatively new phenomenon, with the majority (67 percent) of agreements with this language coming into force after 2010.

**Figure 13.5:** Distribution of level of enforcement across transparency provisions

![Figure 13.5: Distribution of level of enforcement across transparency provisions](image)

*Source: Deep Trade Agreements Database.*
Transparency provisions, like standards and risk provisions, are found predominately in developing and mixed-income agreements. Information exchange is the most common form of transparency, and it occurs in agreements between developing economies and between mixed-income economies with equal frequency (Figure 13.6).

![Figure 13.6: Distribution of transparency provisions by income level](source: Deep Trade Agreements Database)

### 13.3.4 Institutions

The number of agreements that establish a separate institutional structure related to SPS are few. There are 93 agreements that establish an SPS committee in the context of the PTA while a fewer number, 69, establish a working group. Very few (4) agreements establish a body to administer the SPS work within the agreement. There are 24 agreements that establish a mechanism mandated to issue administrative decisions.

Half of the agreements that establish an SPS committee are dated after 2010 and are between developing economies. Only four agreements between high-income economies establish such a committee. Some agreements (27 in total) specifically designate the committee to be the first point for dispute resolution. The majority of these, 63 percent, are between developing economies. From the numbers presented here, while setting up a separate institutional structure is still relatively rare (only 34 percent of all agreements establish an SPS committee), the majority of PTAs that do are between developing economies.

### 13.3.5 Further cooperation

Further cooperation is measured across a number of other dimensions. These include any regulatory cooperation mechanisms that are put in place (other than those already covered under areas such as inspection or risk assessment). In addition, technical assistance and consultations are also coded.
There are 37 agreements that include language calling for common or consultative policy approaches, and of those, only two have binding commitments. In addition, there are 44 agreements calling for technical assistance (64 percent of which involve countries with different income levels), but only three have binding commitments. However, 74 agreements have a provision for technical consultation or cooperation, and half of those are between countries of mixed income levels. The level of commitment is fairly evenly spread across the three levels measured in this work, with a slightly higher share (40 percent) going to binding commitments (Figure 13.7).

The other provisions are spread across levels of development, with the largest number of technical assistance (64 percent) and cooperation provisions (50 percent) being in the PTAs of mixed income levels. However, only 7 percent of agreements specifying technical cooperation are between high-income economies, and these are mainly non-binding provisions.

13.4. CONCLUSIONS

The majority of trade agreements contain some reference to SPS measures, and these have been increasing over time. There is a clear distinction between the treatment of SPS provisions by level of economic development. Reference to SPS is found more frequently in agreements signed by developing economies, perhaps in an attempt to bolster inadequate domestic regulation.

Provisions related to cooperation in regulatory measures are found in only a few agreements, but these are more recent and thus could indicate the beginning of a trend toward expanding
interest in international regulatory cooperation. Conversely, the recent agreements could indicate a trend toward competing regulatory approaches that could potentially introduce further heterogeneity into the rules of the trading system.

The coding presented here attempts to provide an improved array of factors by which researchers can examine PTAs on matters dealing with SPS specifically and cooperation more generally. While studies have shown PTAs to have a positive impact on trade flows between member countries (Didier et al. 2019), the task is to understand which provisions have the largest impact. With data efforts such as the World Bank’s Deep Integration project, it will be possible to better tease out these impacts.

**ACKNOWLEDGMENTS**

The authors wish to thank Juan C. Macías Gómez for coding assistance and many useful discussions; Clarisse Legendre for database work; and OECD colleagues, notably Martin van Lampe and Frank von Tongeren, as well as colleagues from the WTO, notably Lee Ann Jackson, for helpful comments. All remaining errors are our own.
REFERENCES


