



Asia-Pacific
Economic Cooperation

APEC FOOD SAFETY CAPACITY BUILDING INITIATIVE

UPDATE TO THE MID-TERM REVIEW

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ABBREVIATIONS

AMR	Antimicrobial Resistance
APEC	Asia-Pacific Economic Cooperation
CDC	U.S. Centers for Disease Control and Prevention
CODEX	Codex Alimentarius
CTI	Committee on Trade and Investment (APEC)
FAO	Food and Agriculture Organization of the United Nations
FSCF	Food Safety Cooperation Forum (APEC)
GFSP	Global Food Safety Partnership (World Bank)
GRP	Good Regulatory Practices
HACCP	Hazard Analysis and Critical Control Points
JMPR	Joint FAO/WHO Meeting on Pesticide Residues
M&E	Monitoring and Evaluation
MRL	Maximum Residue Limit
NTB	Non-Tariff Barrier to Trade
NTM	Non-Tariff Measure
PTIN	Partnership Training Institute Network
SCSC	Sub-Committee on Standards and Conformance
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade
US-ATAARI	US-APEC Technical Assistance to Advance Regional Integration
WHO	World Health Organization
WTO	World Trade Organization
WRF	Wine Regulatory Forum (APEC)
WWTG	World Wine Trade Group

EXECUTIVE SUMMARY

BACKGROUND

The APEC Food Safety Cooperation Forum (FSCF) brings together regulators from the 21 Asia-Pacific Economic Cooperation (APEC) economies to discuss policies that strengthen food safety systems and to enhance the harmonization of food standards with international standards across the APEC region. The FSCF Partnership Training Institute Network (PTIN) was established under the auspices of the FSCF as a public-private partnership to build food safety capacity. The PTIN engages in activities, primarily trainings, involving both regulators and private sector actors across the supply chain to help them meet international standards.

Exports of food products from APEC economies reached US\$200 billion in 2016.^{1 2} Facilitation of trade in food is thus a significant economic concern for APEC economies, while ensuring food safety is a primary health concern for citizens of APEC economies. Put simply, the work of the FSCF and its PTIN is intended to maximize safety of traded food while minimizing disruptions to trade.

This report is an update to the Mid-Term Review of APEC Food Safety Capacity Building Initiative that was first published in 2015. The current Review was conducted to inform the PTIN Steering Group of progress and results when it meets next in Chile in 2019. While the intention is to assess the progress of work under PTIN, work on maximum residue limits (MRL), while technically held under the aegis of the FSCF, is also included because it touched on capacity building and links to recent MRL work led by the United States. It should be noted that PTIN's work is driven by the policy directives set by the FSCF, and as such, the FSCF and its PTIN work together on capacity building and shared goals.

This report was funded by the United States through the US-APEC Technical Assistance to Advance Regional Integration (US-ATAARI) project, which provides capacity building for APEC.

PURPOSE AND METHODOLOGY

This update to the Mid-Term Review evaluates the ongoing effectiveness of the PTIN to build capacity and influence policy and practice on food safety among APEC economies, focusing on activities conducted since 2015. The Review did not conduct an exhaustive evaluation of all FSCF and PTIN activities but rather on select workstreams.

This Review examines the following evaluative questions:

- Do general trends in food safety and trade policy and practice in the APEC region demonstrate progress toward FSCF and PTIN objectives?
- Is PTIN effectively influencing policy or practices toward enhanced food safety or reduced barriers to trade, or both?

¹ Food excluding fish. Calculated using FAO trade indices data, available at <http://www.fao.org/faostat/en/#data/TI>.

² All dollar amounts are in U.S. dollars unless otherwise indicated.

- Have certain selected project workstreams contributed to improvements in member economies' policy or capacity? These workstreams are (a) export certificates, (b) maximum residue limits, (c) aquaculture, and (d) good regulatory practices.
- To what extent have recommendations from the 2015 review been adopted?

This Review relies primarily on qualitative data supplemented by quantitative data, if available (US-ATAARI and APEC Project monitoring and evaluation data). Key informant interviews were conducted with numerous APEC economies to capture broad perceptions regarding PTIN's work and to reduce potential biases.

FINDINGS AND CONCLUSIONS

Q1. Do general trends in food safety and trade policy and practice in the APEC region demonstrate progress toward FSCF and PTIN objectives?

Overall trade in food is increasing despite a proliferation of non-tariff measures (NTM) among member economies. The private sector perceives that, in many cases, these NTMs are acting as non-tariff barriers. No regional food safety data is available that would allow policy makers to evaluate whether the NTMs are increasing food safety as intended.

Exports of food (excluding seafood) by the 21 APEC member economies increased from US\$150 billion in 2007 (when FSCF was established) to \$200 billion in 2016 (the most recent year for which FAO publishes this data).³ Many APEC economies have significantly updated their food safety legal and regulatory frameworks since 2010. Major food safety laws have been passed in Viet Nam (2010), Peru (2011), Canada (2012), Indonesia (2012), New Zealand (2014), the U.S. (2015), and China (2015). The resulting increase in NTMs is perceived by the private sector, in many cases, as creating non-tariff barriers.

Surveys of the private sector find that procedural barriers and protectionist or arbitrary application of both technical-barriers-to-trade and sanitary/phytosanitary requirements seem to be increasing in frequency. Unfortunately, limited data is available to gauge whether the increased non-tariff measures are resulting in improved food safety outcomes. The data that does exist indicates that imports of seafood and fresh produce suffer from the highest incidence of food safety events (both categories are high risk); however, data is not available on whether rejected or problematic shipments are increasing.

Q2. Is the PTIN effectively influencing policy or practices toward enhanced food safety or reduced barriers to trade, or both?

Food safety continues to be of high relevance to member economies, but PTIN priorities (and by extension, the FSCF priorities that they help implement) need to be reaffirmed to ensure that they reflect the interests of a maximum number of economies. Activities appear to be most effective when there is a concentrated, multiyear effort at both the policy and practical levels.

When those conditions are met, respondents say the non-binding nature of the organization offers open sharing of experience and collegial network building that offers value to economies

³ <http://www.fao.org/faolex/country-profiles/en/>

if the “right people are in the room.” Targeting participants and finding sufficient funds to meet demand are key challenges to conducting successful trainings. Industry has expressed a willingness to co-fund events, but many associations do not know who to contact or what the requirements are.

From a broader perspective, interviews with industry suggest that APEC regulators are more willing to consult with the private sector and that industry now feels as welcome in FSCF meetings as in PTIN meetings. This speaks to the core mission of the PTIN upon its establishment, that is, to include industry in food safety and trade discussions. Perhaps as a result, the distinction between the FSCF and the PTIN has diminished, and the need for two separate fora is now unclear to all stakeholders.

Q3. Have specific project workstreams contributed to improvements in member economies’ policy or capacity?

Export Certification. The PTIN has held several workshops to develop model export certificates and is now exploring a model dairy certificate. The PTIN is collaborating with the Wine Regulatory Forum, which developed the APEC Model Wine Export Certificate. This has been self-initiated for exports of wine from Chile and is being accepted in all of Chile’s APEC markets that require certificates. At the 2018 Honolulu Wine Regulatory Forum meeting, Chile reported that it saw a reduction of 7,534 export certificates in the first 12-month period, which equated to a time reduction of 2,511 hours. Likewise, in the Canadian province of Ontario, some exporters reported using the APEC Model Wine Export Certificate. This speaks to the potential benefit of a uniform APEC export certificate for products for economies that require certificates. The PTIN is now using the APEC Model Wine Export Certificate as a model to develop an APEC Model Dairy Export Certificate (Australia is also proposing the creation of a separate Dairy Regulator Forum).

Maximum Residue Limits for Pesticides (MRL). The publication of the FSCF’s APEC Import MRL Guideline for Pesticides is considered by respondents to be one of the organization’s most tangible accomplishments in recent years. The Guidelines are being piloted by the U.S. Environmental Protection Agency on three pesticide chemicals. The U.S. pilot found that the new review process for import tolerances led to faster approvals. Application outside these two economies have been slower to move forward, with two product-specific efforts (wine and mangoes) failing to find traction. Unrelated to the policy work, capacity building on MRL-setting is being conducted and appears effective.

Aquaculture Supply Chain. This work area is resulting in economy-level improvements to policy and practice following a train-the-trainer event in 2015. Most significantly, in Viet Nam, capacity building has reportedly had a direct impact on recent legislation — both (a) the inclusion of biosecurity for aquaculture in the Veterinary Law (2015) and (b) elements of the Fisheries Law (2017) and its implementing regulations were informed by PTIN activities. A certified trainer from Viet Nam is conducting trainings to help regulators and industry adapt to the Hazard Analysis and Critical Control Points (HACCP) and to biosecurity elements in the laws and regulations. A more recent training was intended to help universities learn and modify the APEC/World Bank Global Food Safety Partnership modules to their curriculum now that private parties can provide HACCP certification. Thus, in Viet Nam, there are changes to policy, institutions, and industry practices — all of which are being informed by the APEC training participants. The training was also replicated with APEC support in Peru. At this time, no

information is available on whether trainers from the other nine economies that participated in the original train-the-trainer session have gone on to replicate the work.

Good Regulatory Practice in Food Safety. There is evidence that PTIN workshops are stimulating adoption of good regulatory practices to food safety issues in several participating economies. For example, Mexico and the Philippines are now including public consultation in the drafting of food safety regulations and publishing them more systematically.

Q4. To what extent have recommendations from the 2015 review been adopted?

The PTIN Administrator has sought to implement the 2015 recommendations within existing resource constraints. This has included production of communication pieces being posted to the website. However, the website is not being updated regularly, and year-on-year traffic to the PTIN website is decreasing. Private sector respondents would like to have event invitations with more advance notice to facilitate their participation. Government members from all relevant ministries would like to receive event invitations from the FSCF Secretariat or PTIN Administrator directly rather than through a centralized ministry point of contact (often the Ministry of Foreign Affairs) to address their own internal information bottlenecks. This would help them respond within stated deadlines.

RECOMMENDATIONS

Based on responses from key informants, the below recommendations are suggested to further strengthen APEC's food safety work. The PTIN Steering Committee (and the FSCF to the extent that these issues touch on policy) may wish to:

- **Develop and endorse a strategic plan that clearly lays out medium-term priorities.** It would be helpful to agree on three-four clear priority areas that will focus efforts and resources in the coming years. Suggestions from key informants include continued work on MRLs, export certification, aquaculture, equivalence, and modernization. A strategic plan would replace or update the Regulatory Maps and Operational Plans, now more than five years old.
- **Agree on performance indicators that could be self-reported at regular meetings to show whether work toward the goals is having tangible outcomes.** Members would like to see a sharper focus on outcomes and better measurement and tracking of whether goals are being met. Possible indicators are suggested for consideration by the PTIN in each of the priority areas below. What would need to be weighed is whether economies could sustainably report on these indicators with existing resources.
- **Establish clear guidelines on how to substantively and logistically organize food industry-sponsored public-private PTIN events.** Industry involvement can help with resource constraints and increase domestic interest in adopting policy reforms. Mechanisms for co-funding, and areas that the PTIN would like to have co-funded, should be identified and disseminated to industry. Moreover, inclusion of developing economy industry representatives (not just regulators) should be considered for travel sponsorship, where relevant.
- **Discuss and agree the mandate and responsibilities of the FSCF and its PTIN, respectively.** The division of labor between the two fora is not clear to all stakeholders. Many industry representatives stated they feel equally welcomed in FSCF and PTIN

forums now. In fact, this is an accomplishment toward the goal of involving industry more closely in delivering improved food safety. However, this perception indicates a need to “refresh” the PTIN mandate. In addition, it has been suggested that conducting combined FSCF/PTIN reviews in future would increase efficiency because the work is highly connected.

- ***Broaden PTIN’s mailing list to ensure communication is reaching all relevant stakeholders.*** The PTIN could increase awareness of its activities among regulators and industry by widening its mailing list so that people attending events are automatically included (unless they opt out) in future communications.

INTRODUCTION

The APEC Food Safety Cooperation Forum (FSCF) was established in 2007 bringing together regulators from the 21 APEC economies to address issues of food safety related to trade.⁴ The overall goal of the FSCF is to strengthen food safety systems across the APEC region, consistent with commitments under the World Trade Organization’s (WTO) sanitary and phytosanitary (SPS)/technical barriers to trade (TBT) agreements (APEC FSCF Surabaya 2013).

Recognizing that meeting the goals of food safety in trade requires close collaboration with the private sector and other stakeholders directly involved in the food supply chain, in 2008, the Partnership Training Institute Network (PTIN) was established by the United States under the auspices of the FSCF as a public-private partnership for food safety capacity building among APEC member economies. The PTIN supports overall FSCF goals by building capacity of stakeholders in the supply chain to use international standards and best practices in food safety management from production to consumption. PTIN is guided by a steering committee⁵ whose work is facilitated by an administrator from the United States. The PTIN now has more than 700 members from government, academia, and the private sector.⁶

Timeline of Recent FSCF Meetings and Statements
<i>2011, Big Sky, The USA</i>
<i>2013, Surabaya, Indonesia</i>
<i>2014, Beijing, China (Special Session)</i>
<i>2015, Cebu, The Philippines</i>
<i>2017 Ha Noi Viet Nam</i>

Trainings are organized and funded by volunteer member economies (frequently with APEC Secretariat co-funding) under an operational plan that was decided in 2010. Since then, the PTIN has provided capacity building in five priority areas: (a) supply chain management, (b) food safety incident management, (c) laboratory competency, (d) risk analysis, and (e) food safety regulatory systems. At the 2017 meeting of the FSCF in Ha Noi, Viet Nam, members directed that antimicrobial resistance, an emerging health issue, be added to the priority areas; however, this change has not been reflected as yet in PTIN documents.⁷

The PTIN Operational Plan calls for biennial reviews to inform the Steering Committee of progress.⁸ This Review is, thus, the regularly planned followup to the most recent review conducted in 2015.

⁴ The FSCF operates under the Sub-Committee for Standards and Conformance (SCSC) of the APEC Committee on Trade and Investment (CTI).

⁵ The Steering Committee is made up of representatives from developed and developing economies, the private sector, academia, development banks, and the APEC Specialist Regional Bodies, which are organizations focused on the standards and conformance infrastructure in the areas of metrology, standards, and conformity assessment.

⁶ This figure includes 379 APEC government representatives, 231 industry representatives, 61 academics, 30 international organization representatives, and 25 non-APEC economy representatives.

⁷ At least eight economies have passed AMR laws in recent years (see Annex E).

⁸ See also PTIN Review of Progress (2011) and PTIN Review (2015).

REVIEW PURPOSE

This update to the Mid-Term Review of the APEC Food Safety Capacity-Building Initiative evaluates the ongoing effectiveness of the PTIN to build capacity and influence food safety policy and practice among APEC economies. It focuses on activities conducted since the 2015 assessment: in fact, a total of 28 food safety policy discussions, workshops, or trainings were conducted by the FSCF and its PTIN between June 2015 and November 2018 (see Annexes A and B for a list of these events and activities, not all of which are covered by this Review).⁹

Given the wide range of interventions conducted under the auspices of the PTIN, this Review focuses on progress in substantive areas that are currently receiving the highest levels of attention from members. These include (a) export certification harmonization, (b) standardization of pesticide maximum residue limits, (c) aquaculture supply chain, and (d) good regulatory practices in food safety. In particular, implementation progress on two roadmaps endorsed by the FSCF in 2013 — one on Export Certification Harmonization and the other on maximum residue limits (MRL) — is examined in detail. The areas of focus were selected based on available documentation and in consultation with U.S. Department of Commerce staff members who serve as PTIN Administrator.

This Review also examines broader changes in food safety policy and practice within APEC. It does so with the understanding that these trends cannot be attributed to the FSCF or the PTIN because of the large number of variables influencing these trends as well as the absence of a counter-factual.

The Review examines the following research questions:

- Do general trends in food safety policy and practice in the region indicate progress towards PTIN objectives?
- Is the PTIN effectively influencing policy or practices toward enhanced food safety or reduced barriers to trade, or both?
- Have specific project workstreams contributed to improvements in member economies' policy or capacity in the areas of (a) export certificates, (b) maximum residue limits, (c) aquaculture, and (d) good regulatory practices?
- And last, to what extent have recommendations of the 2015 review been adopted?

This update of the 2015 Mid-term Review was conducted to inform the PTIN Steering Group of progress and results at its next meeting in Chile in 2019. The primary intended users of this Review are PTIN member economies and, in particular, economies seeking to implement activities or introduce new areas of work.

⁹ Funding for these activities was over US\$400,000 with investments by the governments of Australia, Chile, Japan, New Zealand, and the United States along with grant funds from the APEC Secretariat. This figure understates investment as economies are not reporting the budget of self-funded activities.

METHODOLOGY

The evaluation is primarily qualitative in nature and used three data collection methods to inform analysis. The section discusses the methodology used, namely, document reviews, key informant interviews, and analysis of relevant data from US-ATAARI's monitoring and evaluation (M&E) database, as follows:

- **Key informant interviews.** Semi-structured telephone interviews were conducted with 20 respondents (public and private sector) from 11 APEC member economies involved in FCSF and PTIN (see Annex C for the list of key respondents interviewed). Respondents were identified in collaboration with the PTIN Administrator or through document review or referrals from other key informants.
- **Document review.** This review included FCSF policy statements, including the Roadmaps, PTIN conference and training materials, and a limited literature review on food safety issues (see Annex D for the list of documents reviewed).
- **M&E data.** Trainings and workshops were conducted with support from US-ATAARI-administered pre- and post-questionnaires, asking participants to self-evaluate their level of learning. In addition, one year after the training, participants received a follow-up survey asking whether and how they applied what they learned. The Review thus analyzed relevant data from US-ATAARI's M&E database. APEC-funded projects are now implementing a similar methodology; where this data was available, it was also included.

This Review was conducted in 2018 by the same external, independent evaluator who undertook the 2015 evaluation. It was financed by the US-ATAARI project.

Limitations and Challenges Encountered During Research

This is not a formal evaluation considering the activities are often ad hoc and ongoing, with new initiatives added according to the goodwill and interests of various economies. The PTIN does not have an up-to-date strategic plan or a clear statement of objectives for each project area that can be used to evaluate whether goals are being met. Instead, this Review should be seen as a stock-taking of the focus areas.

Related to the discussion in this report on broader trends in food safety, as noted above, the material presented is for information purposes only. Given the complexity of multilateral trade reforms and the non-binding nature of APEC, any macro-level trends cannot be directly attributed to PTIN support.

Data limitations associated with relying heavily on key informant interviews include possible selection bias, recall bias, and response bias (because of the small number of interviews). The reviewer attempted to mitigate these limitations by including a wide range of economies and triangulating data, when possible. A low response rate to requests for interviews means that not every economy is represented.

FINDINGS

This section presents the findings on each of the research questions, in turn investigating APEC region progress toward enhanced trade-related food safety; assessing whether the PTIN is effectively influencing policy or practice toward enhanced food safety or reduced barriers to trade, or both; examining which activities may have contributed to improvements in member economies' policy or capacity in certain areas; and finally, determining the extent to which recommendations of the 2015 review been adopted.

Q1. Do general trends in food safety and trade policy and practice in the APEC region demonstrate progress toward FSCF and PTIN objectives?

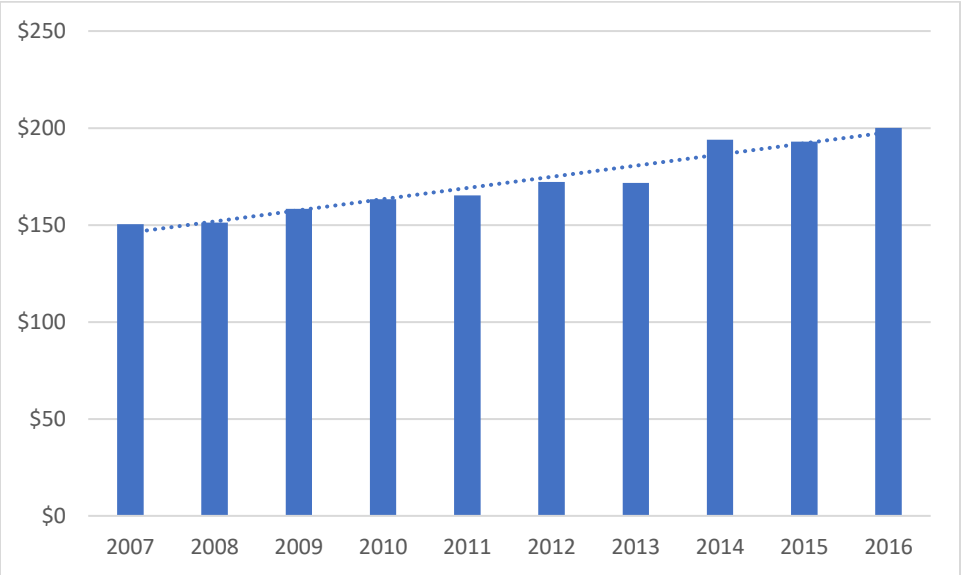
This section examines broader trends during 2008–2018 on enhanced food safety systems and the harmonization of food standards related to trade. It relies primarily on secondary research and is not intended to document results of FSCF or PTIN work.

Trends in the area of food safety and trade include the following:

Trade in food in the APEC region is increasing

During the 10 years since the PTIN was established, the value of exports of food products (excluding fish) by APEC economies increased by one-third from \$150 billion to \$200 billion, as shown in Figure 1. Thus, overall trade trends are positive — and are presumably accompanied by ancillary benefits to economic growth, rural development, consumer choice, and food security.

Figure 1: Total Value of Food Exports by All APEC Economies, 2007–2016 (\$USD billion)



Source: Calculations based on FAO STAT data (<http://www.fao.org/faostat/en/#data/TI>).

Note: Figures show aggregate value of food exports (excluding fish) for all 21 APEC economies.

...Despite a proliferation of new food safety laws and regulations during this period.

The gradual increase in trade in food has been accompanied by food safety regulatory changes in almost all APEC economies. Major new food safety legislation has been passed in Viet Nam (2010); Peru (2011); Canada (2012); Indonesia (2012); the Philippines (2013); Chinese Taipei (2014); New Zealand (2014); the U.S. (2015); and China (2015). Related to fisheries or aquaculture (one of the target areas of this Review), new legislation was passed in Malaysia (2012); Peru (2015); Indonesia (2016); and Viet Nam (2017); and the US, where the Law on Food Safety (2015) was amended to explicitly include aquaculture products. Also related to food safety in trade, laws or policies on antimicrobial resistance were passed in 2017 in China; Indonesia; New Zealand; Singapore; and Thailand; in 2016 in Japan; and in 2014 in the U.S. and Canada.¹⁰

Significant regulatory changes have ensued as have a proliferation of non-tariff measures in the region — and notably, among some of the largest economies. This Review did not extend to examining whether recent legislation reflects best practice or APEC/FSCF guidelines. However, as noted in PTIN's own documents, any regulatory changes can result in increasing costs to both regulators (in both importing and exporting economies) and industry.

On the other hand, regional trade agreements show some progress toward facilitating trade in food. For example, a 2016 report by the Asia-based law firm King & Wood Mallesons (Bouvier et al. 2016) found that, "Recent trade agreements affecting the APEC region, including TPP, eliminate agricultural export subsidies, work together in the WTO to develop disciplines on export state trading enterprises and export credits, and limit the time frames allowed for restrictions on food exports so as to provide greater food security in the region."

The private sector perceives many of these non-tariff measures¹¹ as non-tariff barriers.

As noted in APEC's own statements, changes to the regulatory regime create both complexity and costs for regulators and industry, even if only the costs of learning about the new requirements. Private sector perception is that barriers to trade are increasing generally and that food is particularly hard hit. This view is seen both in the literature review and in key informant interviews with industry representatives. For example, an APEC Business Advisory Council-sponsored study by the University of Southern California found that "non-tariff barriers (NTB) are increasing in prominence and complexity in *all* APEC economies" (APEC 2016, v). Technical-barriers-to trade (TBT) and sanitary-and-phytosanitary (SPS) measures were considered particularly burdensome by respondents to that study. The concerns voiced in the aforementioned US-based academic report are echoed in Asian industry journals that cite

¹⁰ A non-comprehensive list of recent, relevant food safety-related legislation in member economies is provided in Annex E.

¹¹ UNCTAD (United Nations Conference on Trade and Development) defines *non-tariff measures* (NTM) as "policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both."

recent developments related to traceability requirements and the creation of country-specific standards as creating conditions that impede trade (Bouvier et al. 2016).

The 2012 World Trade Report, which focused on non-tariff measures, found that SPS measures concerning food safety and animal/plant health did have the effect of restricting trade in agricultural products. At the time of that report, 94 percent of specific trade concerns regarding SPS measures, and 29 percent of those regarding TBT, were related to agriculture and “evidence from WTO disputes also shows a greater number of citations of the SPS and TBT agreements in cases involving agricultural products than in other cases” (WTO 2012). In fact, a number of recent cases brought before the WTO involve trade in food among APEC economies.

Evidence is lacking on whether food safety is improving as a result of these regulatory changes.

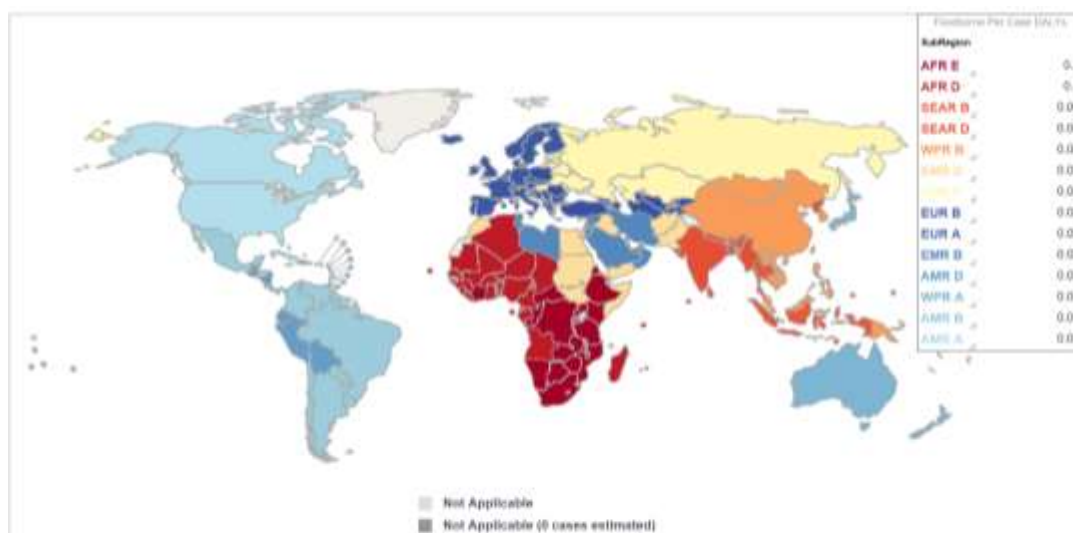
This Review was unable to identify research articles or data points on overall food safety incidents in exported/imported food in the APEC region that would allow examination of whether the new regulations are resulting in improved food safety. INFOSAN — the joint FAO/WHO network for responding to food safety incidents — reports only aggregate global incidences. In the first half of 2018, the INFOSAN Secretariat responded to 32 international food safety events. This is higher than the average during 2011–2015 (total of 37 events in 2015, 40 in 2014, 44 in 2013, 42 in 2012, and 46 in 2011); however, it is impossible to say whether this trend is attributable to an increase in frequency of serious incidents or to an improvement in reporting (FAO/WHO 2016).

Available literature on food safety incidents in imported foods relates primarily to incidents in Europe and the U.S. For example, a 2017 study for the U.S. Centers for Disease Control and Prevention (CDC) found “a small but increasing number of foodborne disease outbreaks associated with imported foods, most commonly fish and produce ... the number of outbreaks associated with an imported food increased from an average of 3 per year during 1996–2000 to an average of 18 per year during 2009–2014 (Gould et al. 2017).” The countries of origin implicated in the majority of outbreaks, cited in that CDC report, are in the APEC region.

Within Asia, research conducted in 2016 by the public relations firm Fleischman Hillard found that “the largest proportion of food safety incidents in Asia were related to dairy, confectionary and seafood with the majority of incidences involving contamination or recall” (Fleischmann Hillard 2016).

WHO estimates of the global burden of foodborne diseases indicates that Southeast Asia has the highest prevalence of foodborne illness in the APEC region (Figure 2). However, this data presumably reflects primarily domestically grown and handled food, and it is not possible to determine what share of illness is attributable to imported food. This is the first year for this analysis, so it is not possible to examine whether the incidence or burden of foodborne diseases has changed over time.

Figure 2: WHO Estimates of Global Burden of Foodborne Diseases, 2010



Data provided is for 2010, Median

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Source: WHO interactive database, available at https://extranet.who.int/sree/Reports?op=vs&path=/WHO_HQ_Reports/G36/PROD/EXT/FoodborneDiseaseBurden

At the economy level, research related to improving food safety in traded foods includes case studies documenting the success of Peru’s asparagus industry to work with the government to meet international food safety standards (OECD 2007). A World Bank (2017) study of Viet Nam’s food safety standards examined inspection records by Japan and found “that while food exports from Viet Nam have risen considerably between 2004 and 2014, the proportion of shipments and weight of food products inspected remains the same. There is a trend of decreasing number of shipments found in violation ... implying that export food safety performance is improving.”

What is clear in the literature, and collaborated by the key informant interviews, is that given the increasing volume of trade in food, the urgency of ensuring food safety is of heightened and growing relevance. Increased transparency over food safety incidents would help APEC economies track progress on this issue.¹² APEC FSCF members may wish to discuss their willingness to self-report useful data that would illustrate trends, such as:

- The number/percent of imported food shipments from other APEC economies refused entry (i.e., failed inspection);
- The number of food safety incidents reported to trade partners and international agencies; and

¹² The Canadian Food Inspection Agency, for example, publishes data on the number of food shipments refused entry on their webpage, modified on September 26, 2018, “Food Shipments Refused Entry into Canada,” <http://www.inspection.gc.ca/about-the-cfia/accountability/compliance-and-enforcement/refused-entry/eng/1324305448701/1324305531127>.

- The number of food safety incidents related to imported foods from other APEC economies.

Q2. Is the PTIN effectively influencing policy or practices toward enhanced food safety or reduced barriers to trade, or both?

This section discusses findings related to overall evaluative criteria of relevance, effectiveness, efficiency, and sustainability of PTIN strategy, activities, and governance. Findings are based on key informant interviews.

Relevance: High

The topic of food safety in trade is clearly of high relevance as demonstrated by the increasing volume of trade and the significant cost of foodborne illnesses to member economies. The proliferation of legislation in this area across member economies indicates that the topic is of priority to governments and that there is significant scope (and need) to ensure that the creation of new non-tariff measures do not inadvertently become non-tariff barriers.

The question then is whether specific areas of work being undertaken by the PTIN are of relevance and to which economies (recognizing that PTIN intervention areas are driven by FSCF policy directives). The FSCF, in its most recent statement (Ha Noi Statement, APEC FSCF 2017), “reaffirms priority areas” and explicitly refers to “streamlining export certificate requirements and harmonization of MRLs for pesticides” and “building competency in AMR.” The statement is not entirely clear on whether these three priorities are intended to be the main areas of work going forward or are merely three priorities among many.

The statement also cites the FSCF Operational Plan and the two Regulatory Maps. However, the reviewer notes that the Regulatory Maps date to 2012, and after being intended for a two-year period (2013–2015), have not been updated since. The PTIN is in a similar situation whereby the 2010 Operational Plan has not been formally updated in the intervening period. Of the five priority areas identified in the Plan, one — risk analysis — has not had any activities implemented since 2014, and food safety incident management has had only one activity implemented since 2014 (see Annexes A and B). This indicates a need to refresh, or refine, the areas of interest.

A number of respondents felt that creation of a strategic plan or other overarching document identifying concrete policy priorities would be helpful in (a) coordinating efforts and (b) clearly defining intended outcomes so that progress could be measured and tracked. At their next meetings in 2019, the FSCF and the PTIN may wish to update and re-affirm the Roadmaps or replace them with a Strategic Plan that explicitly links the policy objectives of the FSCF with the capacity-building objectives of the PTIN.

Such documents would also be helpful in allowing the full range of economies to provide inputs on their priorities. While activities from 2015 to the present were undertaken by a wide range of economies (Australia; Chile; Peru; the Philippines; and the US, in particular), it is notable that Southeast Asian member economies have not been as active in proposing projects to the APEC Secretariat despite three host years in the region during the period under review. Unfortunately, the limited number of key informants from Southeast Asia make it impossible for the Review to examine why this is occurring.

Effectiveness: Mixed but promising

The increasing number of NTBs to trade in food would seem to call into question the effectiveness of current APEC efforts toward harmonized, science-based regulation. Indeed, key informants were able to identify only a few tangible improvements to policy as a result of FSCF agreements or the PTIN workshops during the past two years (admittedly, a short timeframe for policy reforms). The increasing politicization of trade and the inherent slow-moving nature of policy reform were acknowledged by the majority of respondents as key challenges to increased effectiveness. Some respondents felt that APEC, as a non-binding institution, might not be the most effective forum for reaching agreements on aligning regulatory requirements. Conversely, others felt that this encouraged economies to participate more openly and be more willing to try new approaches.

An overall accomplishment of the PTIN is that industry perceives increased willingness by regulators in the FSCF to include them in dialogue. Interviews conducted with industry representatives in three economies indicate a perception that FSCF regulators have significantly increased their willingness to engage with industry and to have industry participate in FSCF meetings. Because involvement of the private sector in food safety and trade matters was one of the objectives of forming the PTIN, this should be considered a significant attainment toward the core mission. Several regulators interviewed for the Review expressed the sentiment that the involvement of the private sector was one of the comparative advantages of food safety in trade under APEC as compared to other international organizations that work on this issue, such as FAO or the World Health Organization.

Consistent with the 2015 review, all respondents felt that the forum itself, and the exchange it allows with a unique grouping of economies, had value in and of itself, although this was qualified by a sense that this is largely dependent on the seniority and relevance of the representatives attending from the various member economies. Where higher level officials with decision-making authority attended, events were clearly felt to be more effective. On the other end of the spectrum, economy-level trainings were also felt to be effective, although there are significant challenges confronting efforts to scale these types of interventions within the APEC context.

One possibility raised by some key informants was that a sectoral approach — focusing on a particular commodity, for example — might be more effective in achieving tangible outcomes. For instance, the success of the Wine Regulatory Forum (WRF) was cited in these cases as demonstrating that mobilizing around the specific obstacles facing a sector might be more effective in reaching tangible reforms.¹³

Coordination issues, the non-binding nature of the institution, and the fact that most representatives to the FSCF and its PTIN have APEC as only one of their many responsibilities and thus struggle to find sufficient time to focus on APEC issues — these are all seen as an inherent challenge to increased effectiveness and have contributed to certain initiatives being dropped. For example, the intention to operate an APEC Food Safety Alert System was abandoned in early 2018 because of the failure of economies to self-report as required. (It has

¹³ Australia is proposing the creation of a dairy regulator forum and a grain regulator forum, but these include issues that are not food safety-related and may fall under SCSC or CTI.

been agreed that INFOSAN will set up an APEC regional system, but it should be noted that Chinese Taipei will not have access, not being a member of the World Health Organization.)

Areas for improvement suggested by respondents include more inclusive activity design. Economies are initiating activities based on their own trade interests, as would be expected, but key informants expressed that there is only limited opportunity for other economies to influence design so that it is more broadly relevant. Clearer strategic guidelines that identify priorities for the group would be helpful in aligning activities.

A large number of key informants, and all project overseers, interviewed consistently cited the difficulty in targeting the appropriate participants for trainings and workshops. Many project overseers expressed that this was the most time-consuming part of organizing activities, involving significant back-and-forth with economies to ensure that criteria were being met. Failure to “get the right people in the room” was seen as the biggest challenge to having effective workshops. Technical trainings where clear qualifications could be set were somewhat easier in this regard than policy dialogues in which it was difficult to get the right mix of seniority and technical knowledge. For example, the workshops on aquaculture and MRL-setting had vetting processes that were effective.

Efficiency: Good but coordination issues may result in redundancies and missed opportunities

Regarding overall the cost-effectiveness of events, respondents did not have comments per se, but the reviewer noted that:

- Most workshops and trainings are receiving large amounts of co-funding by volunteer economies. In other words, where APEC Secretariat grants are being made, they are often leveraging significant own-source funds.
- Regional workshops are generally held in the sidelines of PTIN meetings to allow more member economies to participate without having to engage in additional travel. It should be noted that while this approach does reduce costs, some respondents felt that the PTIN would be more effective if it were to meet more frequently (at least annually).

In relation to efficiency of approach, several respondents questioned the need to have both FSCF and PTIN structures, finding redundancy in the current arrangement. While not necessarily representative, one respondent’s comment along these lines was, “when we have the workshops, FSCF goes first and then the PTIN, but in fact, it’s just the same people moving from one room to another.” Some respondents — including industry representatives — expressed confusion over the respective mandates and the roles of both the FSCF and the PTIN. There is some indication that this approach may be leading to duplicative efforts, for example, both the FSCF Secretariat and the PTIN Administrator are tracking the same events (see Annexes A and B). Despite these issues, the FSCF Secretariat and the PTIN Administrator are communicating regularly to coordinate efforts, and other respondents felt that having the two fora was still worthwhile.

Another general issue related to efficiency is the lack of coordination with some member economies conducting food safety-related events. For example, several trainings have been funded by the APEC Secretariat without being brought through the FSCF or its PTIN for comment on the content and the work’s relevance to identified priorities. The Sub-Committee on Standards and Conformance (SCSC) can rank proposals and endorse projects, leaving the

FSCF and its PTIN out of the loop. This makes it difficult to build to the common objectives in the various statements and may result in lost opportunities to synergize efforts, help with inviting appropriate guests and speakers, and so forth. At the very least, this makes it complicated for the PTIN Administrator to track activities as requested by the steering committees.

A final point regarding efficiency regards the “silo” effect between ministries in many economies. Food safety and trade is a multisectoral issue often involving stakeholders in various ministries including Trade, Foreign Affairs, Agriculture, Fishery, Health, and Customs. Many of the information bottlenecks identified in the review arise from coordination problems internal to the member economies, problems that are beyond the manageable interest of the PTIN Administrator. Broadening distribution lists for invitations and information-sharing would be useful in addressing this issue.

Sustainability: Too early to tell

Because there have been relatively few changes to policy or practice attributed to the PTIN in the two years under review, it is not possible to say whether efforts are likely to be sustainable. Where there have been concrete changes in policy, such as Viet Nam’s law on fisheries or Chile’s adoption of the APEC wine certificate, the changes would be difficult to reverse. Looking more narrowly at capacity- building events, follow-up data for food safety-related events held under the umbrella of the FSCF and its PTIN¹⁴ will be collected by Japan and Viet Nam (though the data is not yet available as of this writing).

Finally, given ever-tightening budgets among member economies and the APEC Secretariat, the Review considered whether funding for food safety capacity-building was likely to be sustainable given that APEC funding opportunities seem to be declining. In this regard, industry respondents suggested that while many industry associations have a high interest and willingness to co-fund projects, there does not appear to be a clear mechanism for industry to sponsor APEC food safety capacity-building events. The PTIN Steering Group may wish to consider establishing clear guidelines on whether and how to organize such public-private trainings and workshops substantively and logistically.

Q3. Have specific activity workstreams contributed to improvements in member economies’ policy or capacity?

This section discusses findings related to specific workstreams. The workstreams were selected based on the existence of policy documents identifying them as priority areas or the high volume of activities, including self-funded activities, evidencing high levels of interest and commitment by member economies. The evaluator also proposes performance indicators for each stream of work, as called for in the Terms of Reference.

Export certificates

In April 2013, the FSCF endorsed moving forward with a regulatory cooperation plan to develop roadmaps in two areas: export certificates and pesticide maximum residue limits. Working groups were formed to identify draft roadmaps in each area for FSCF endorsement (see the Maximum residue limits section below for further discussion on this area). The export certificate work is led by the U.S. with working group members from Australia; Brunei; Canada; Chile;

¹⁴ This follow-up data involves online surveys of training participants one year after the event to ascertain whether skills gained in the training subsequently were applied or resulted in changes to policy and practice, or both.

Mexico; Peru; New Zealand; Papua New Guinea; and Thailand as well as from the Grocery Manufacturers Association and the Wine Regulatory Forum.¹⁵

A summary of achievements and challenges since 2015 is presented in the table below.

¹⁵ The FSCF endorsed the following roadmaps in September 2013: the FSCF Roadmap for Regulatory Cooperation in Export Certificates and the FSCF Roadmap for Regulatory Cooperation in Pesticide Maximum Residue Limits. For more information, see the FSCF/PTIN's webpage "FSCF Roadmaps for Regulatory Cooperation in Export Certificates and Pesticide Maximum Residue Limits Draft Roadmaps Endorsed in September 2013," accessed June 13, 2018, <http://fscf-ptin.apec.org/events/fscf-roadmaps-for-regulatory-cooperation/>.

Summary - Export Certificates

Achievements

High Relevance

- Key informants state that because this work touches directly on trade facilitation, it is of high interest to their economies.
- Among participants in the 2017 workshop (representing 19 member economies) 67 percent of respondents indicated that the topic was a “top priority” for their economy.
- An APEC eCert compendium was developed and approved in 2015, to support work on the APEC electronic certification standard package referenced in the Roadmap.

Successful Pilot of Model Wine Export Certificate

- The Wine Regulatory Forum (WRF) agreed on a model certificate that was endorsed by the Sub-Committee on Standards and Conformance (SCSC) in 2016. The model certificate consolidates the Certificate of Origin, Certificate of Authenticity/Free Sale, and Certificate of Health/Sanitation (borrowing from China and U.S. forms) into one certificate, reducing paperwork and red tape for regulators and industry.
- Chile adopted the certificate one year ago (September 2017), and it is being accepted by all APEC economies where certificates are required. The Chilean government estimates that over one year, the adoption of the APEC certificate
 - Reduced paperwork by 7,534 certificates
 - Saved regulators 2,511 labor hours
 - Saved industry over \$75,000 in government fees and one week per certificate of labor time
 - Eliminated delays at customs in importing economies by eliminating the need to verify the validity of certificates

2017 PTIN Workshop Resulting in Concrete Changes to Policy and Practice and in Application of Capacity Building¹⁶

- Of respondents, 98 percent stated they would be able to use what they learned “often” or “occasionally” with the most frequent applications being applying international standards and helping when negotiating with other economies (including through the WTO) ($N=50$).
- Of respondents in the 2017 Ha Noi workshop, 57 percent improved their capacity based on pre- and post-assessments ($N=30$).
- In a follow-up survey, 14 of 17 respondents stated that they had applied what they learned in their work one year later, and 3 respondents stated that the training helped their economy adopt international good practice.

¹⁶ The 2017 Ha Noi workshop, conducted with support from the US-ATAARI project, provides capacity-building support to eligible APEC member economies and the APEC Secretariat. All workshops conducted with US-ATAARI support apply pre- and post-testing to gauge whether participants increased their capacity and a one-year follow-up survey to gauge whether participants went on to apply what they learned.

Challenges

Slow Uptake of Model Export Certificates

- Current efforts to replicate the approach beyond wine now focus on the dairy industry. Australia is now also proposing creation of a separate dairy regulator forum. The work is still ongoing, but respondents see challenges because dairy is higher risk than wine.
- Objectives to eliminate certificates and increase use of electronic certification appear to be long-term goals.

Objective of the workstream. The FSCF's and the PTIN's work on export certification encourages APEC economies to streamline export certificates by instituting consistent, transparent, and evidence-/risk-based certificate requirements. This will facilitate trade by reducing the compliance and enforcement burden of certificates while maintaining public health.

The changes to policy and practice sought under this workstream, reflecting APEC Ministerial agreements and regional and international best practice, are to

- Eliminate the use of certificates for no-risk or low-risk food products.
- Harmonize certificate requirements, taking CODEX guidelines into consideration where possible.
- Agree on a model export certificate for key sectors, and encourage its adoption by APEC economies.
- Encourage use of electronic certification.

Background. Building on two U.S. self-funded workshops on export certificates in 2010¹⁷ and 2012, the FSCF Action Plan to Implement the APEC Regulatory Cooperation Implementation Plan, was endorsed in 2013; the action plan identified export certificates as one area for concerted cooperation. Subsequently, a roadmap was endorsed in 2013, laying out a two-year plan to harmonize the use and application of export certificates with international standards. In 2015, an APEC eCert compendium was developed and approved to support work on the APEC electronic certification standard package referenced in the Roadmap. Implementation of the Roadmap has involved an export certificate workshop in May 2017 in Ha Noi, attended by 80 participants; it covered CODEX guidelines as well as generic and industry-specific export certificate templates. This workshop was followed by a half-day session on dairy certification. Also in May 2017, a brochure on export certification requirements in APEC was published and posted on the PTIN website with various resources for regulators.

During the early stages of work in this area, an export certificate survey was conducted in 2009 that identified 80 export certificate requirements being administered in APEC economies. A follow-up export certificate survey is being finalized. The findings of the second survey,

¹⁷ The initial workshop was held in the margins of the CODEX Committee on Food Import Export Inspection and Certification Systems.

compared with the earlier survey, should be helpful in determining whether any economies are reducing export certificate requirements in line with the objectives.

Effectiveness. The adoption of the APEC Model Wine Export Certificate is the most concrete outcome toward the stated goals thus far. While this was not done directly under the mandate of the FSCF or the PTIN, adoption did involve cooperation between the FSCF and the WRF, and WRF representatives were invited to a PTIN training. The case of wine clearly demonstrates the potential gains from the approach being taken. It is thus perhaps instructive to examine the factors contributing to the success of the WRF Model Export Certificate. According to WRF members, these included

- The presence of all economies that are major importers/exporters of the commodity in question, thus ensuring that the views of both sides could be considered when reaching consensus.
- Connection of the APEC forum to the World Wine Trade Group, which unlike APEC, is a binding institution and adopted the export certificate.
- Active, consistent support by industry players who had a direct interest in the outcome and thus were willing to push forward the work, including attending workshops, co-funding activities, and conducting advocacy with their governments.
- On the part of Chile, the participation in the WRF by the regulators responsible for drafting the regulation on the wine certificate ensured that the model certificate was subsequently adopted. In addition, in the Chilean context, the change could be enacted through administrative regulation rather than more complex legal changes. Successful implementation required significant coordination between line departments and industry, as described below.

Chilean Adoption of the APEC Wine Certificate for Export

We had to walk a long way in a little time. The Ministry of Agriculture was in charge of generating the administrative resolution to put into force the model APEC certificate. Then, the Ministry of Agriculture communicated the intention to implement the certificate on the part of Chile to contact points in other agricultural ministries in the APEC region to inform them that we will change all the certificates for this new model certificate which consolidates four into one. That communication was very important. Simultaneously, the Agricultural Attaché of the Ministry of International Affairs was making the same communication with Ministries of Economy of the APEC region and customs departments. Both Ministry of Agriculture and Customs had to inform [domestic] producers of the new certificate. So this was very coordinated labor that we had to do to update the use of the new certificates The administrative resolution was issued on August 11, 2017, and the communication/outreach was done from August to September. By September 3, 2017, they could use the certificates. It was very fast.

The WRF is working to encourage more economies to adopt the APEC Wine Export Certificate, and Chile shared its success at the WRF meeting in Honolulu in October 2018. Canada is now exploring adoption of this wine export certificate and has made it available to all members of the

World Wine Trade Group. Because of its federal structure, progress is more dispersed than it was in Chile, but the province of Ontario also reports some exporters are using the APEC Model Wine Export Certificate.

The FSCF and its PTIN are working to replicate this success outside the wine sector. The WRF certificate was used as a model for the dairy certification, and Australia is now also proposing creation of a separate dairy regulator forum. In the October 2018 workshop, participants did not come to consensus on endorsing the model certificate at the session itself, and the project organizer planned to incorporate comments received at the workshop and recirculate for endorsement.

At a more granular level, the 2017 PTIN workshop resulted in concrete, if limited, changes to policy and practices in member economies to adopt international good practices in this area. Of the respondents to a follow-up survey, 14 of 17 stated that they had applied what they learned in their work one year later, and 3 respondents stated that the training helped their economy adopt international good practice. Concrete changes cited by respondents included the following statements:

“[We] revised existing regulations and guideline in order to comply with international regulation and facilitate the trade. Many articles of regulation have been revised.”

“[We] used some of lessons learned to develop [the] new food law.”

“Chile implemented the export certificate for wine, based on FCSF work recommendations In order to implement the APEC model wine certificate, our agency must modify the internal procedures to apply the use of the certificate, where the direct use of the skills gained during the training was of great help.”

The October 2018 PTIN workshop on export certificates, attended by 41 participants from 16 economies, was also successful at increasing capacity; 86 percent of respondents stated they increased their level of knowledge on the topic matter (based on a 64 percent response rate). A large majority (90 percent) stated that the training was relevant to their job responsibilities, and 55 percent stated they will use the information frequently. Furthermore, 73 percent stated that it is an important priority to their economy with another 17 percent stating it is a top priority.

Areas for improvement. Key informants noted that the Roadmap on export certificates, which covered the period 2013–2015, has not been formally updated. A number of elements in the roadmap were not achieved in this timeframe. In the current environment, respondents felt that certain goals, such as eliminating certificates or increasing use of electronic certification, while clearly preferential for trade facilitation, were a long way off. Respondents considered that a medium-term strategic document going forward would be useful. Thus, it is recommended that the Roadmap be “refreshed” with input from members to ensure that the forward-looking strategy is clear and realistic. Because of limited time during meetings, this might best be done intersessionally via an electronic working group. Respondents note that the intended electronic working group (mentioned in the Roadmap) had not met regularly and contrasted this to the performance of the MRL electronic working group.

Given the success of the WRF in piloting the export certificates, respondents felt that a sectoral approach might be fruitful as a supplement to the current broad approach. However, respondents from many of the developing economies noted that not as many economies export dairy as wine and that exporting such product is also higher risk. They suggested that focus on another sector in addition to dairy would be welcome.

Finally, there was a sense that given the direct link between export certificates and trade facilitation, industry should be taking an active role. Respondents noted the very limited engagement of industry from developing members and attributed this to resource constraints. APEC may wish to consider allowing grant funds to be used for association attendance at events in addition to regulators for a limited number of economies.

Proposed performance indicators. Proposed performance indicators for this topic are the number of economies: (a) eliminating one or more export certificates, (b) adopting or accepting APEC-standardized export certification formats, and/or (c) automating one or more export certificates.

Maximum residue limits

The FSCF Action Plan to Implement the APEC Regulatory Cooperation Implementation Plan endorsed in 2013 identified pesticide maximum residue limits (MRL), in addition to export certificates, as an area for concerted cooperation. The APEC MRL Roadmap was subsequently endorsed by the FSCF in 2014 setting out a two-year plan for harmonizing MRL standards.

Summary - Maximum Residue Limits
Achievements
<p>High Relevance</p> <ul style="list-style-type: none"> • Key informants state that linking the APEC work to CODEX guidelines gave this area a high degree of relevance to the economies, which also means that the objectives are more concrete than for some of the other workstreams. • MRLs for pesticides relate to all plant-based food production and is thus of relevance to both exporting and importing economies. MRLs can be a significant non-tariff trade barrier affecting food.
<p>Endorsement and Publication of Tolerance Guidelines</p> <ul style="list-style-type: none"> • APEC’s 2016 <i>Import MRL Guideline for Pesticides</i> was adopted in July 2016 as an official APEC document. This is seen by respondents as one of the major tangible achievements of FSCF during the period under review. • The Guidelines are based on practice in Australia, which is thus <i>de facto</i> already applying the Guidelines; they are also being piloted by the U.S. Environmental Protection Agency, which found that the new review process for import tolerances led to faster approvals. • The Guidelines are now available on APEC’s website in Spanish, Chinese, and Vietnamese as well as in English.

Electronic Working Group Active and Effective

- Member economies state that the MRL EWG has been effective in moving the work forward intersessionally and is meeting regularly. It has also expanded to more economies.

MRL Capacity-Building Workshop Apparently Effective

- Feedback from participants on two hands-on trainings in Thailand and Malaysia (led by Japan, in a separate effort from the Guidelines) is positive in terms of increasing skills and application post-training. Participants learned how the globally harmonized MRL-setting procedure is used by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and how to initiate the process of getting CODEX MRLs.

Challenges

Other Economies Have Been Slow to Adopt Guidelines

- Efforts to pilot MRL in wine and mangoes have not come to fruition (a proposal from the Philippines was not acted on). Chile is working on implementing the Guidelines, but the process is in early stages. The Philippines is referring to APEC MRLs for imported fruits and vegetables; they already use CODEX MRLs, where available.

Objective of the workstream. Under the FSCF Action Plan, this workstream seeks to align MRL standards with CODEX MRL or economies with no MRL to use the same MRLs as other APEC member economies (regulatory convergence). It was proposed that APEC economies adopt:

- Participation in the development of MRLs in Codex Alimentarius;
- Incorporation of CODEX-compliant MRLs in domestic legislation;
- Work sharing or exchanging data to support the establishment of pesticide MRLs by member economies, in order to encourage the adoption of CODEX MRLs in cases where there is no domestic equivalent for a member economy; and
- Unilateral recognition, where practical and appropriate, in domestic regulation of specific pesticide/commodity MRLs of trading partners on a case-by-case basis.

Background. The pesticide MRL work is led by Australia with working group members from all APEC economies as well as the Grocery Manufacturers Association and the Wine Regulatory Forum. The MRL Electronic Working Group meets about every six weeks to coordinate and provide inputs (formerly to the Guidelines, currently to the Tools). It should be noted that activities on MRLs are considered to be held under the auspices of the FSCF rather than the PTIN.

Under a three-year project self-funded by Australia, a series of five workshops have been held to reach convergence on MRL in Pesticides Guidelines and support their implementation. Two workshops held in 2015 focused on developing the *APEC Guidelines on Harmonization for Pesticide MRLs* that were published in 2016 and endorsed in 2017. Current work is now

underway to promote the adoption and application of the Guidelines. Workshops in February 2017 were held to discuss how economies can implement the Guidelines in their economies. Following on recommendations from that workshop, in April 2018, a workshop was held to develop two toolkits: a Compendium and a Common Import MRL Application Form. The first tool is a database that will capture relevant information about government administration of regulatory import MRLs for pesticides in APEC member economies; the second is a template that will describe the necessary information that will enable an import MRL request to be raised to any APEC member economy. While not capacity building per se, the toolkits are intended to ultimately help member economies adopt the Guidelines.

Work to develop the tools continued at a workshop in October 2018. Drafts of the two implementation tools were agreed by participants at that workshop and are currently being finalized in a digital format to facilitate uptake. Endorsement by APEC economies will be sought at the APEC FSCF Conference scheduled to be held in May 2019.

Complementing this effort on MRLs, the United States also held a 2018 workshop presented before the Australia-led workshop that examined trade facilitative approaches to MRL compliance. The objectives of the U.S. workshop were to (a) share information on how different APEC economies enforce pesticide MRLs and manage MRL violations, (b) examine the role of the private sector in maintaining high levels of compliance with MRLs, and (c) explore the relationships between missing and disharmonized MRLs, MRL violations, trade, and other economic and social factors, including market stability and food security. The United States commissioned a study to assess the trade impacts of MRL disharmonization in the APEC region, and the preliminary results of that study were shared in an APEC FSCF-PTIN brochure and at the workshop. In attendance at the workshop were 46 participants representing 17 APEC member economies.

In addition to these policy workshops, but not directly coordinated with them, APEC funds supported capacity-building trainings on pesticide residue evaluation, with Japan as Project Overseer, in Thailand (2016) and Malaysia (2017). This workstream has thus seen extremely high levels of concentrated inputs through the years.

Effectiveness. Endorsement of the Guidelines in 2016 is considered by respondents as one of the more significant, concrete outcomes achieved by the FSCF in recent years. The Guidelines (translated into Spanish, Chinese, and Vietnamese as well as English) are available on APEC's website. The two tools to assist the uptake of the APEC Guidelines (i.e., the Compendium and an APEC common import MRL application form) have been developed in 2018. The willingness of economies, notably Australia, to self-fund activities in this area has allowed for a large number of interlocking events. This is important, given the amount of time and effort required to reach agreement on policy changes (in this case nearly three years of consistent discussion and deliberation to reach agreement on the Guidelines).

Adoption of the Guidelines includes practices in Australia (on which the Guidelines were based) and a pilot by the U.S. Environmental Protection Agency, which will test a streamlined data review strategy for establishing MRLs on imported commodities, APEC- and non-APEC, to determine the feasibility of acceptance of other National Authority/JMPR reviews of residue chemistry data to support establishment of import tolerances. So far, the pilot has been applied

to three chemicals (with a total of 13 chemicals to be covered). Initial pilot results are that the reviews take about 50 fewer hours than the traditional process, leading to faster decisions.

However, attempts to pilot sector-specific MRL guidelines (that adapt the general guidelines) for wine and mangoes have not come to fruition. In the Philippines, which had suggested MRLs for mangoes during its host year (2015), a proposal was submitted to APEC but was never acted on. The WRF has encouraged members to adopt MRLs for wine, but to date, no economy has done so.

Interviews with key informants in Chile and the Philippines indicate that their economies are moving toward adoption of the APEC guidelines for certain products, but these efforts are in early stages. Followup data for a 2016 PTIN workshop also suggests that China may be referring to the APEC MRL Guidelines, citing a participant who wrote: *“We are drafting Chinese import MRL guideline refer[ing] to APEC guideline.”*

Separately from the work on Guidelines, M&E data available for the October 2018 MRL workshop “APEC FSCF PTIN MRL Harmonization Workshop: A Trade Facilitative Approach to MRL Compliance” led by the U.S. demonstrates that 72 percent of the 46 participants self-evaluated as increasing capacity in the subject and 91 percent stated that the workshop content is relevant to their work responsibilities, and 49 percent stated that they will be able to apply the material frequently in their work (indicating effective targeting of participants). A large majority (80 percent) stated that the subject is a top or important priority for their economy.

Meanwhile, trainings led by Japan at the economy level, while not coordinated with the FSCF’s policy efforts, do appear to have successfully increased capacity on MRLs. Among the 20 participants from 9 economies who participated in the Japan-led trainings, feedback from participants suggest that the workshop helped them gain practical skills in setting MRLs in this hands-on training. Participants stated they would use the learning from the training as follows:

“Organise the technical committee that [is] responsible in setting MRLs, that had set MRLs as national standard. Actually, this national standard of MRLs need to reviewed.”

“Organise training, develop work plan.”

“At the moment in the health ministry, we are working on the topic, so we can apply much.”

A one-year followup survey to this group of trainees is expected in November 2018 that will provide more information on how learning was applied. Clearly, this type of event could help with implementation of the Guidelines if it were conducted in a coordinated, concerted effort targeted at economies that do not have the systems or capacity in place to adopt the guidelines. That said, many of the economies that have not adopted CODEX standards are the larger economies that don’t require capacity building.

Areas for improvement. The primary challenge in this area of work is how best to incentivize adoption, recognizing that such policy changes generally occur over extended periods. For example, the workshops have come out with recommendations that economies implement an import MRL request process if they do not yet have one. But so far, no economy has done so. Some key informants question the efficacy and sustainability of the current tools being developed and feel that a clearer strategy needs to be developed. A review of the Roadmap might be beneficial in reaching agreement on what approach — sectoral, toolkits, or an as yet

untried approach — to be taken going forward. The success of the training led by Japan in 2017 indicates that combining the policy work on MRLs with hands-on training might be useful.

Proposed performance indicators. Possible indicators for this workstream include the number of

- Economies with infrastructure for handling import MRL requests
- Economies that have adopted MRL import request systems based on the guidelines
- Requests processed through those systems

Australia as the Secretariat of the FSCF and as an economy that has been investing its own resources in this area has indicated willingness to develop baseline figures for these indicators if they are endorsed at the next FCSF meeting.

Aquaculture supply chain

In 2011, the PTIN entered into a partnership with the World Bank’s Global Food Safety Partnership (GFSP) to pilot activities in the area of aquaculture. This section discusses progress in this area, including subsequent self-funded activities.

Summary – Aquaculture
Achievements
<p>High Relevance</p> <ul style="list-style-type: none"> • Available data suggests that aquaculture and aquatic products are a high-risk, high-value food that involves both less developed economies (as exporters) and developed economies (as importers). Increasing standards for aquaculture is thus presumably of high relevance to most economies in APEC.
<p>Training of Trainers contributing to Vietnamese legal changes in and improvements in food safety</p> <ul style="list-style-type: none"> • According to key informants, knowledge gained through APEC trainings in 2015 and 2017 has contributed to improving the Viet Nam Veterinary Law (2015) and the Fisheries Law (2017). Some experts trained in Hazard Analysis and Critical Control Points (HACCP) and biosecurity were involved with the drafting of these laws and are currently working on implementing regulations. With the addition of aquaculture biosecurity in the Veterinary Law (which did not formally include fisheries), drugs for fish are now being regulated for the first time in Viet Nam.
<p>Cadre of Trainers developed under APEC Project are replicating trainings</p> <ul style="list-style-type: none"> • In Viet Nam, certified trainers have trained about 26 regulators and representatives of industry and academia in 2017 and 2018.

- Under the new Fisheries Law, third-party certification is now allowed for HACCP. Current trainings (self-funded by New Zealand) are helping Vietnamese universities incorporate the APEC-supported training materials to be adapted into their curriculum.
- In Peru, the certified trainers have trained 25 seafood inspectors in 2016.

Challenges

- This work falls under the supply chain management priority area of the PTIN work, but the aquaculture sector itself is not formally identified as a priority for the FSCF or the PTIN.
- Despite the concrete successes seen at the economy level in applying learning through APEC, and its wide relevance to the APEC region, aquaculture is not explicitly identified as a priority in the most recent FSCF statement. This may reduce available funding despite the high demand for training by many APEC economies.
- There is a lack of staff resources to continue to oversee the work as APEC project managers despite the World Bank's GFSP stated interest in continuing to collaborate.

Objective. This area of work seeks to increase the capacity of regulators and industry to improve food safety in aquaculture products, including related issues for disease management. The approach taken was to develop a network of certified aquaculture trainers across APEC with the expectation that they would replicate trainings in their economy.

Background. During 2015–2018, several interlocking activities were undertaken through the PTIN-GFSP partnership. Outputs of this work include the following:

- In September 2015, a train-the-trainers session conducted for 24 trainers from 11 economies. Participants were trained in seafood Hazard Analysis and Critical Control Points (HACCP) and in Sanitation Control Procedures and are now recognized as “qualified trainers” to teach approved curriculum in HACCP in accordance with the protocol of the Association of Food and Drug Official’s Seafood HACCP Alliance.
- Training materials have been translated into Spanish and Vietnamese.
- In 2016, follow-up training was held in Peru. Trainees from the 2015 training, with supervision by a mentor, led a training for 25 seafood inspectors in June 2016.
- In 2017, follow-up training was held in Viet Nam for 26 regulators and representatives of industry and academia under a collaboration of APEC and GFSP (funded by New Zealand) with the U.S. as APEC project overseer and lead trainers.
- In 2018, a follow-on training in Viet Nam was conducted for about 26 university faculty to help them integrate the training materials into their curriculum. This was self-funded by New Zealand through GFSP.

Effectiveness. This work is resulting in concrete changes to policy and practice in Viet Nam. According to key informant interviews, learning from the workshops has directly contributed to the drafting of the Veterinary Law, which was issued in 2015 and explicitly includes aquaculture biosecurity for the first time. In addition, this has contributed toward a new fisheries law that becomes effective on January 1, 2019; implementing regulations for this law are being drafted by some of the same APEC trainings participants.

These policy changes mean that drugs for fish are being regulated in Viet Nam for the first time, which should increase health and reduce problems with antimicrobial resistance. Stakeholders are seeking to collect data on whether these changes are resulting in improvements to food safety. Currently, the government of Viet Nam is pushing to have the improved practices adopted across the industry so that domestic customers as well as export markets benefit from safer aquaculture products.

The new fisheries law also allows for third-party HACCP certification for the first time. The trainers from the 2015 workshop are now replicating the training for university faculty from around Viet Nam who have expressed interest in modifying the training modules for inclusion in their curriculum.

Areas for improvement. According to project documents, funds were not allocated to trainees that participated in the 2015 train-the-trainers session that would allow them to (a) translate materials into their language and (b) lead a training under the supervision of a mentor (which is a standard part of the training curriculum developed by the Seafood Alliance). After the original workshop was held, there was additional funding left over to provide mentoring to two of the economies to carry out training in their own economy. The activity would have been strengthened if the original budget had included this type of support in each economy.

Despite the concrete successes achieved to date and the economic importance of the sector in many APEC economies, aquaculture is listed as an activity area. However, it is not identified in FSCF statements as a separate priority area, falling instead under the “supply chain” priority. This may be due to an assumption that the GFSP will take over this work, and it appears that some APEC economies prefer to fund the GFSP rather than to conduct trainings through the PTIN. It would be useful for FSCF members to discuss how and whether aquaculture should be included in the workplan, going forward, for another economy to lead. One respondent suggestion is that it would be useful to replicate the approach taken with MRLs for pesticides to MRLs for drugs in fish.

Proposed Performance Indicators. Possible indicators for this workstream include the following:

- *Exporting economies:* Percent of fish farms that are inspected for food safety and disease prevention annually (numerator = number of farms inspected; denominator = total number of registered farms)
- *Exporting economies:* Number of fish farms that are registered/certified/approved
- *Importing economies:* Percent of import samples with positive result for drug residues (risk-based sample)

Good regulatory practices in food safety

APEC conducts work to encourage good regulatory practices (GRP) as an ongoing priority. The PTIN has sought to encourage application of the GRP guidelines, developed by APEC and the OECD, to food safety and trade. This section examines GRP capacity building specific to food safety.

Summary – GRP

Achievements

PTIN capacity-building workshops influencing adoption of GRP for food safety

- In a 2016 workshop on public consultation, 28 percent of respondents were able to cite concrete changes to policy or practice in their economy one year later.
- Subsequent to their participation in PTIN workshops, Mexico and the Philippines have developed GRP guidelines for their respective Agriculture ministries that reflect the APEC/OECD guidelines.

Objective of the workstream. To assist APEC member economies to understand and adopt good regulatory practices can be applied to food safety policy, with particular emphasis on public consultation and industry/regulator cooperation.

Background. Unlike MRLs and export certificates, GRPs is not an area of priority specifically cited in FSCF policy statements. Instead, this area is an outgrowth of other APEC work on GRP. The United States has funded the US-ATAARI project to conduct a series of three workshops on this topic. The first “High Level Food Safety Regulator/Industry Dialogue” was conducted in 2014, the second “Effective Industry/Regulator Cooperation Roundtable” in 2015, and finally, “FCSF Public Consultation Workshop” in August 2016.

Effectiveness. Data (only available for 2016) and interviews indicate that the workshops are encouraging economies to apply GRP principles to food safety. The 2016 workshop (where data is available) was attended by 60 participants from 15 economies. A follow-up survey, one year later, was answered by 17 participants from 10 economies (and 2 ASEAN attendees). The follow-up data found that all but one respondent was able to apply what they had learned at least occasionally. A selection of statements on how they had applied what they learned is illustrative and includes

“We are currently implementing a new law, the Food Safety Act, and because of this, we are developing guidelines and procedures for the implementation of our regulatory functions. The guidelines that we developed are subjected to public consultations prior to implementation.”

“We are using the learnings during our public consultations here in the Philippines.”

“I am actively involved in Pacific Alliance Projects, discussing regulatory framework for foods and dietary supplements. In these discussions, frequently, I take into account what I learned during the FSCF [PTIN] Workshop.”

“In PNG we are in the process of reviewing our national food regulations. Presentations and networks made in the workshop better enabled me to contribute to this process, ensuring that our reforms will facilitate smoother domestic market development and trade, as well as regulatory oversight.”

Ten of these respondents stated that the workshop helped their economy adopt international good practices, speaking to the value of these types of trainings:

“We have changed our management method in technical regulations in food safety to enhance the transparency in developing regulation.”

“The guidelines that we were able to develop on the official accreditation of laboratories had undergone public consultation prior to implementation.”

“We are making more efforts to include private sector in the process.”

Key informants to the review also indicate that the workshops contributed to application of GRP to food safety and trade in their economies, as stated below.

“This month we published the second version of our system for reduction of risk contamination (a voluntary program to certify fruits and vegetables for export) and in preparing this, we took into consideration the APEC workshop we attended. For example, we met with different organizations during development, and now that the regulation is finalized, we have published [it] on the website. It was not our common practice before to publish regulations. I think we are now working to document things and try to have a policy to publish regulations, and we respect the agreement with our APEC economies. We involve the industry and producers.”

“We have adopted the GRP based on the APEC and OECD guidance documents. The Regulatory-Industry dialogue was also a good exercise as it looked into best practices for convergence between the private and public sector.”

Areas for improvement. No suggestions for improvement were made in interviews or followup surveys for this area of work.

Proposed performance indicators. APEC collects data on GRP under the Sub-Committee on Standards and Conformance (SCSC) and Economic Committee; therefore, it is not suggested to have specific performance indicators for this area.

Q4. To what extent have recommendations from the 2015 review been adopted?

The 2015 review found that respondents were very positive about the work of the PTIN Administrator but made several recommendations for increased effectiveness. This section examines whether, and to what extent, these recommendations have been implemented. Some recommendations regarded opportunities for the PTIN Administrator to strengthen communication and information dissemination to members. These recommendations included

- **Collecting and centralizing information on policy changes and on training activities taking place among PTIN members**

During the 2015 review, it was recommended that the PTIN could usefully serve as a clearinghouse for information on policy changes and trainings in member economies. The Administrator has increased its efforts in this area, as evidenced by the list of workshops included in the newsletters and on the website.

The PTIN Administrator has also made some attempt to track policy changes on food safety and trade. For example, the U.S. has conducted surveys on export certificate requirements, asking economies to self-report requirements. In addition, a brief review of major legal changes was included in the Export Certificate Toolkit compiled by the United States.

However, the Administrator faces challenges in tracking policies and activities, namely, they are dependent on member economies to self-report, and this has not happened regularly. Factors that complicate the centralization of information include the following:

- Economies do not systematically share their project ideas with the FSCF Secretariat and the PTIN Administrator before submitting proposals to the APEC Secretariat. Coordination of work based on agreed priorities is weak with economies generally putting forward activities based on their national interests and priorities. In principle, food project proposals received by the Secretariat are circulated to both SCSC members and FSCF members for a double review. However, it may be that, in some cases, project concept notes are not being circulated to the correct ministry or contact.
- Food safety typically involves a large number of agencies within an economy (for example, Food and Drug, Customs, Commerce and Trade, Agriculture), and within an economy, the representatives to the FSCF or the PTIN may not be aware that another ministry has issued a proposal.
- Meeting only biennially and regular turnover within ministries means that designated contacts in each economy may not be available (or may not be aware that the PTIN would like to have this information reported regularly).

Should PTIN members consider that it would be useful to compile this information, a clear mechanism for reporting should be agreed on, going forward. Key informants suggested that the PTIN should meet annually instead of biennially or that additional electronic working groups should be established, or both. Self-reporting of policy changes through these meetings would be a more efficient method for tracking and sharing developments. Despite these challenges, respondents are very positive about the work of the PTIN Administrator.

Finally, it should be noted that there appears to be some duplication between the administrative work of the FSCF Secretariat and the PTIN Administrator in this regard: both secretariats provided the reviewer with lists of activities for 2018 with the same events indicated but slightly different categories of information. Division of labor or coordination, or both, may help the two secretariats operate more efficiently.

- **Developing and publicizing website content**

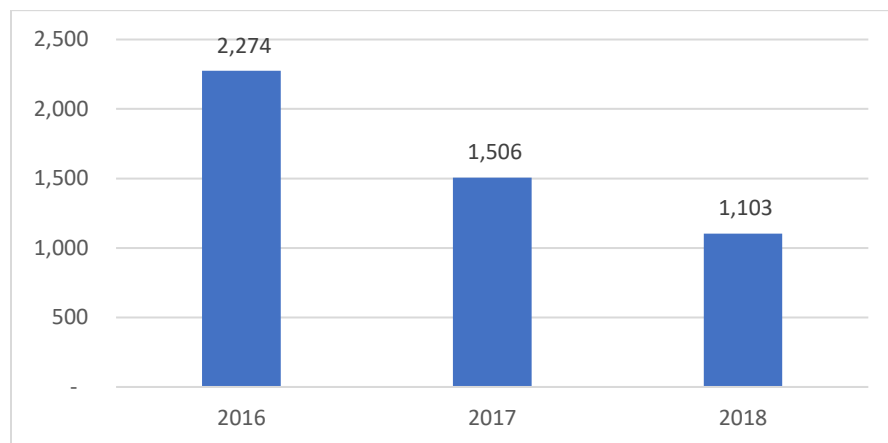
Respondents to the 2015 review felt that more could be done to use the PTIN website to promote capacity building and share current policies and practices. However, implementation of this recommendation has been impeded due to lack of content as well as secretariat resource constraints. Respondents noted that upon beginning this review (June 2018), the website at <http://fscf-ptin.apec.org/> had not updated its events list for a year, as shown below.



Source: <http://fscf-ptin.apec.org/> accessed on June 14, 2018.

In terms of promoting the site more broadly, Figure 3 shows that, in fact, the number of visitors to the website has decreased from 2016 to 2018.

Figure 3: Visitors to the PTIN Website, 2016–2018



Source: Data from Google Analytics.

Note: Data for 2018 is only for January 1 to August 27, 2018. But 2016 and 2017 data are for the entire calendar year.

That the website is available only in English may reduce utility, considering Latin American and Southeast Asian economies are not well represented among the countries most frequently visiting the site (Figure 4). Making a Spanish-version of the site available might increase usage in Latin American member economies.

Figure 4: Top Five Origin Economies of Visitors to PTIN Website, 2016–2018

Rank	2016	2017	2018
1	U.S.	U.S.	France
2	UK	China	U.S.
3	Singapore	Viet Nam	China
4	China	Singapore	Mauritius
5	The Philippines	Australia	Australia

- **Increasing communication or updates to members**

Implementation in this area includes a series of communication materials and brochures, funded with savings from an APEC multiyear project.¹⁸ This included development of visuals and summary information that highlight activities, lessons learned, and best practice in an easy-to-digest format. The project also funded a newsletter that was released in June 2018, updating members on recent and upcoming events. Despite these efforts, a number of key informants from the private and public sectors stated they receive only sporadic information from the PTIN. Respondents suggested that dissemination to a broad mailing list (not just the official APEC counterpart to the FSCF) would help in ensuring all interested stakeholders receive the relevant information.

- **Document and disseminate examples of industry-sponsored trainings**

Two documents have been disseminated along these lines and are available through the website and the newsletter. One is on hand washing and the second is on the role of food industry associations. The Philippines is referring to these materials in its' government trainings for food industry producers.

¹⁸ This reallocation was approved in 2017 by the PTIN Steering Committee.

CONCLUSION AND RECOMMENDATIONS

In summary, this update to the Mid-Term Review of the APEC Food Safety Capacity Building Initiative finds that current areas of work are considered relevant but that members would like (a) to have clearer priorities and (b) agreement on an overarching strategic document that would help focus efforts and clearly define intended outcomes. Members express a preference for topics directly related to trade facilitation. Technical work on adoption of international standards (CODEX) is also considered high priority.

Regarding effectiveness, the Review finds that the work is having direct impact on policy and practice as seen, notably, in:

- The successful adoption of the APEC Model Wine Export Certificate by Chile and Ontario, Canada;
- The piloting of practices by the U.S. EPA, inspired by the APEC Guidelines on MRLs for Pesticides;
- The application of HACCP and biosecurity standards in Viet Nam's veterinary and fisheries laws; and
- The application of GRP principles to food safety and trade legislation, including guidelines for systematic public consultation and publication of relevant regulation.

Success has been most evident where there is direct commercial interest in the reform (i.e., the export value is significant) such that regulators are willing to overcome domestic inertia or resistance. Sustained effort over years is often required to achieve results. Beyond these "wins," progress has been slower. This reflects the long-term, complex nature of trade reforms. The respective Working Groups for MRL and export certification may wish to broadly solicit ideas among member economies on how best to support adoption of these harmonization measures to reaffirm that current approaches are appropriate.

Regarding PTIN's effectiveness as a network, the review finds evidence of efforts by the PTIN Administrator to increase communication through the production of brochures and newsletters. Feedback regarding the Administrator's work continues to be extremely positive; however, more could be done to engage the private sector and to promote and add content to the website.

Recommendations

These recommendations address perceived areas for improvement identified during the review.

- **Develop and endorse a strategic plan that clearly lays out medium-term priorities and concrete objectives.**

The FSCF and its PTIN may wish to develop a Strategic Plan that identifies three to five clear priority areas that reflect the interests of a majority of economies. This would be helpful in focusing efforts and resources in the coming years. Priority areas suggested by respondents include continued work on MRL and export certification, aquaculture supply chain, equivalence,

and modernization. As part of this process, it is recommended that members update and re-affirm the Regulatory Cooperation Roadmaps on MRLs and export certificates, providing clearly defined objectives, work plans, and performance indicators.

- **Agree on performance indicators that could be self-reported at regular meetings to show whether work is having tangible outcomes.**

Members would like to have a sharper focus on outcomes and on better measurement and tracking of whether goals are being met. This would require agreement for economies to self-report the below data points because they are not commonly available. Whether economies will be able, in practice, to produce this data will need to be discussed openly because data points that require too much work to obtain will likely not be reported. The 12 proposed indicators — assuming they are deemed feasible by member economies — are as follows:

- Number/percent of imported food shipments from other APEC economies refused entry (i.e., failed inspection)
 - Number of food safety incidents reported to trade partners/international agencies
 - Number of food safety incidents related to imported foods from other APEC economies
 - Number of economies eliminating one or more export certificates
 - Number of economies adopting APEC standardized export certification formats
 - Number of economies automating one or more export certificates
 - Number of economies with infrastructure for handling import MRL requests
 - Number of economies that have adopted MRL import request systems based on the guidelines
 - Number of requests processed through those systems
 - Percent of aquaculture farms that are inspected for food safety and disease prevention annually
 - Number of aquaculture farms that are registered, certified, and approved
 - Percent of aquaculture import samples with positive result for drug residues
- **Establish clear guidelines on how to substantively and logistically organize food industry-sponsored public-private PTIN events.**

Industry involvement can help with resource constraints and increase domestic interest in adopting policy reforms. Moreover, industry involvement was cited by the WRF as key to success in implementing the use of the wine export certificate. The PTIN could encourage industry involvement by setting clear guidelines and a clear mechanism for industry to cosponsor APEC food safety capacity-building events. Mechanisms for co-funding and areas that the PTIN or the FSCF, or both, would like to have co-funded should be identified and disseminated to industry. Moreover, to the extent that private sector participation is seen as increasing effectiveness, donor economies may wish to consider making developing-economy industry representatives eligible for travel sponsorship (not just regulators).

- **Discuss and reaffirm the mandate and responsibilities of the FSCF and the PTIN, respectively.**

The division of labor between the two fora is not clear to all stakeholders. Many industry representatives stated they now feel equally welcomed in FSCF and PTIN forums. Meanwhile, some capacity building is being held under the auspices of the FSCF rather than the PTIN. The Strategic Plan should (a) explicitly link the policy objectives of the FSCF with the capacity-building objectives of the PTIN and (b) clarify the respective roles and activities of the two fora — unless and until such time that member economies decide that PTIN's original mandate of involving academia and the private sector no longer requires a separate entity. Once the relative mandates are defined, it may be efficacious in the future for these biennial reviews to cover both FSCF and PTIN activities, should the members of both fora agree.

- **Broaden PTIN's mailing list to ensure communication is reaching all relevant stakeholders.**

The PTIN could increase awareness of its activities among regulators and industry by widening its mailing list so that people attending events are automatically included (unless they opt out) in future communications. This would help (a) ministries overcome information silos to ensure invitations arrive in time and (b) private sector representatives (who do not necessarily follow the APEC calendar as closely as the government representatives) keep track of events. The PTIN may also wish to establish intersessional meetings to carry work forward, perhaps by electronic working group.

ANNEX A. FCSF AND PTIN EVENTS AND ACTIVITIES (2018)

Month	Event	Project Title (Linked to APEC Database)	Lead Economy	Co-sponsor	Budget
April	1st Expert Workshop Haikou (China) April 5-6, 2018 SCSC 05 2017S	FSCF: Trade Facilitation Through Harmonization of Maximum Residue Limits for Pesticides – Phase 3: Development of Two Implementation Tools Goal was to develop (a) a toolkit database that will capture relevant information about government administration of regulatory import MRLs for pesticides in APEC member economies and (b) a template that will describe the necessary information that will enable an import MRL request to be issued to any APEC member economy.	Australia	The United States	Self-funded Phase 3 of the MRL work is budgeted at US\$147,927

May	2nd Expert Meeting Port Moresby (Papua New Guinea) May 21-22, 2018 SCSC 04 2017S	FSCF: Trade Facilitation Through an "APEC Framework on Food Safety Modernisation"	Australia	Chile, China, New Zealand, Papua New Guinea, Thailand, the United States	Self-funded
June	Workshop Lima (Peru) June 21-22, 2018 CTI 26 2017	FSCF: Workshop on Trade Facilitation Through the Recognition of Food Safety Systems Equivalence	Peru	Australia, Chile, New Zealand, the Philippines, Thailand	APEC US\$82,000 Co-fund US\$20,000 Total US\$102,000
October	Workshop Santiago (Chile) October 3-5, 2018 CTI 24 2017A	FSCF: Building Competence in Antimicrobial Resistance Surveillance Among APEC Economies	Chile	Australia, Japan, Korea, Mexico, Papua New Guinea, Peru, the Philippines, Singapore, Thailand, the United States	APEC US\$137,500 Co-fund US\$33,000 Total US\$170,500
October	MRL Survey Brisbane (Australia) October 9-10, 2018 SCSC 03 2018S	PTIN MRL Harmonization Workshop: A Trade Facilitative Approach to MRL Compliance	The United States	Australia, New Zealand	Self-funded

October	2nd Expert Workshop Brisbane (Australia) October 11-12, 2018 SCSC 05 2017S	FSCF: Trade facilitation Through Harmonization of Maximum Residue Limits for Pesticides – Phase 3: Development of Two Implementation Tools	Australia	The United States	Self-funded
October	Workshop Brisbane (Australia) October 18-19, 2018 SCSC 04 2018S	PTIN Workshop on Export Certificate	The United States	Australia, New Zealand	Self-funded
October	Workshop Brisbane (Australia) October 20, 2018 SCSC 04 2018S	PTIN Workshop on Model Export Certificates for the Dairy Industry	The United States	Australia, New Zealand	Self-funded
November	3rd Expert Meeting Shanghai (China) November 5-6, 2018 SCSC 04 2017S	FSCF: Trade Facilitation Through an "APEC Framework on Food Safety Modernisation"	Australia	Chile, China, New Zealand, Papua New Guinea, Thailand, the United States	Self-funded

ANNEX B. FSCF AND PTIN EVENTS AND ACTIVITIES (2015-2017)

No.	Priority 1: Risk Analysis				
No trainings since 2014					
Priority 2: Food Safety Regulatory Systems					
No.	Workshop Title	Location/Date	Beneficiaries (No.)	Intended Outcome	Budget
1	<u>PTIN: Export Certificate</u> workshop	Ha Noi, Viet Nam May 2017	Total: 80 (est.)	Regulatory cooperation and harmonization activity	APEC and U.S. funded
2	FSCF: Workshop on Future Perspectives on <u>Harmonisation of Import Maximum Residue Limits (MRL)</u>	Ha Noi, Viet Nam May 2017		Identify tools to assist economies to implement the Guidelines.	Self-funded by Australia
3-5	FSCF: Expert Workshop on the <u>harmonization of pesticide MRLs</u> for imported food in APEC economies	Canberra, Australia February 2017 Cebu, the Philippines August 2015 Sydney, Australia April 2015	Total: 70 (est.)	Developed the Guidelines on Harmonization for Pesticide MRLs that were ultimately published in 2016 and endorsed in 2017.	Self-funded by Australia
6	<u>FSCF: Modernization of Food Safety Systems</u> Workshop	Ha Noi, Viet Nam May 2017	Total: 44	Capacity building/regulatory harmonization/GRP	
7	PTIN: Towards a Future of Prevention and Partnership: Roundtable on <u>Effective Industry/Regulator Communication</u>	Cebu, the Philippines August 2015	Total: 82	Capacity building/GRP	

8	FSCF: APEC Regional Workshop: Facilitating Trade Through <u>Updates on Food Safety Regulatory Standards</u> of APEC Economies	Santiago, Chile September 23-25, 2015	Total: 74	Capacity building/GRP	
9	PTIN: Effective Industry-Regulator Cooperation: <u>Better Food Safety Regulation Through Increased Transparency and Public Consultation</u>	Lima, Peru August 18-19, 2016	Total: 60	Capacity building/GRP	Self-funded by US
Priority 3: Supply Chain Management					
	<i>Workshop Title</i>	<i>Location/Date</i>	<i>Beneficiaries (No.)</i>	<i>Intended Outcome</i>	
10	PTIN: Hand Hygiene Pilot in Peru	Lima, Peru June 2016	Total: 20 (est.)	Capacity building	
11-12	PTIN: Preparing Trainers to Deliver Sustainable Education to Prevent Food Safety Concerns Threatening Aquaculture Development — A joint FSCF PTIN & World Bank GFSP Program (2015–17)	Ha Noi, Viet Nam September 2015 Lima, Peru June 2016	Viet Nam Total: 24 Peru Total: 30	Capacity building/train the trainer	APEC US\$57,800
13	PTIN: Seafood HACCP and Preventative Controls for Aquaculture Food Safety and Disease Prevention in Viet Nam	Ha Noi, Viet Nam November 2017	Total: 26	Follow on from earlier train the trainer to mentor a training in Viet Nam for audience of regulators, industry representatives, and academics	APEC (with New Zealand support): US\$21,000
14	FSCF: Food Additives Workshop	Chinese Taipei, China April 2015	Total: 70 (est.)	Capacity building	
No.	Priority 4: Incident Management				
15	FSCF: Facilitating Trade Through the Strengthening of Food Safety Emergency Systems of APEC Economies	Chile November 2016 – December 2017	Total: 40	Capacity building	APEC US\$85,655 Co-fund (some portion of) US\$61,960

No.	Priority 5: Laboratory Competency				
16	PTIN: Determination of cadmium in rice proficiency testing program (part of MCTI 032012A)	Virtual February- July 2017	Total: 20 (est.)	Capacity building	
17-18	FSCF: Harmonization of MRL Setting Process in the Asian Region through Training on Pesticide Residue Evaluation	Bangkok, Thailand December 2016 Kuala Lumpur, Malaysia December 2017	Total: 70 (est.)	Capacity building/regulatory Harmonization/GRP	APEC \$26,476 Japan Co-fund \$64,523 Total \$91,000
19	FSCF: Workshop on Coordinated Research Initiative for the Implementation of Antimicrobial Resistance Control Strategies CTI 25 2014A (SCSC)	Santiago, Chile October 2015	Total: 70 (est.)	Capacity building	

ANNEX C. KEY RESPONDENTS INTERVIEWED

No.	Economy	Respondent
1	Australia	Mr. Geoffrey Annison Deputy Chief Executive Australian Food and Grocery Council
2	Australia	Mr. Steve Crossley Manager, Scientific Strategy, International and Food Surveillance Food Standards Australia New Zealand
3	Australia	Dr. Hong Jin Senior Scientist, Food Standards Australia New Zealand
4	Canada	Mr. Jason McLinton Vice President, Grocery Division and Regulatory Affairs Retail Council of Canada
5	Chile	Mr. Juan Ortuzar Ministerial Advisor Ministry of Agriculture, Government of Chile
6	Chile	Mr. Joaquín Almarza Serrano Agronomist Enologist Sub Department Chief, Vineyards, Wines and Alcoholic Beverages Agricultural and Forestry Protection Division Agricultural and Livestock Service
7	Japan	Dr. Hidetaka Kobayashi Ministry of Agriculture, Forestry and Fisheries
8	Mexico	Ms. Silvia Elena Rojas Villegas Director of Agrifood Safety, Organic Operation and Pesticides for Agricultural Use National Service of Health, Safety and Agri-Food Quality (SENASICA)
9	New Zealand	Mr. Bill Jolly Chief Assurance Strategy Officer of Standards New Zealand Ministry for Primary Industries (MPI)
10	Peru	Mr. Marcelo Valverde Coordinator of Sanitary and Phytosanitary (SPS) Measures Directorate of Technical Requirements for Foreign Trade, Ministry of Foreign Trade and Tourism (MINCETUR)
11	The Philippines	Mr. John Greg Aquino Senior Science Research Specialist Standards Development Division, Bureau of Agriculture and Fisheries Standards Department of Agriculture, Government of the Philippines
12	The Philippines	Ms. Alpha Mateo Lanuza Senior Science Research Specialist Technical Services Division, Bureau of Agriculture and Fisheries Standards Department of Agriculture, Government of the Philippines
13	The Philippines	Ms. Lara Navarro Chief of the Standards Development Division (former) Bureau of Agriculture and Fisheries Standards (BAFS) Department of Agriculture, Government of the Philippines
14	Singapore	Ms. YiFan Jiang

		Head of Science and Regulatory Affairs Food Industry Asia
15	The USA	Ms. Jamie Ferman Secretary of the Wine Regulatory Forum/ Senior International Trade Specialist Beverages and Toys Industry and Analysis U.S. Department of Commerce
16	The USA	Ms. Anna Gore International Trade Specialist International Regulations and Standards Division, Foreign Agricultural Service U.S. Department of Agriculture
17	The USA	Mr. Brett Koonse (Aquaculture Trainer and Expert) U.S. Food and Drug Administration
18	The USA	Ms. Lori Tortora Senior Trade Advisor International Regulations and Standards Division, Office of Agreements and Scientific Affairs, Foreign Agricultural Service U.S. Department of Agriculture
19	The USA	Ms. Lisa Weddig Vice President, Regulatory and Technical Affairs National Fisheries Institute
20	Viet Nam	Mr. Van Tai Mai Head of Department Department of Science, International Cooperation and Training Research Institute for Aquaculture No.1 (RIA1) Ministry of Agriculture and Rural Development, Government of Viet Nam

ANNEX D. DOCUMENTS AND SOURCES

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ANNEX E. FOOD SECURITY AND TRADE-RELATED LAWS ENACTED IN MEMBER ECONOMIES (2010–2018)

Rank	Economy	Year	Name of Law
1	Australia	2015	Biosecurity Act
2	Brunei		No significant changes
3	Canada	2014	Antimicrobial Resistance and Use in Canada: A Federal Framework for Action
		2012	Safe Food for Canadians Act
4	Chile	2018	Sanitary Regulation of Foods (Decree No. 977- Revision to original decree issued in 1996)
		2017	General Fisheries and Aquaculture Law (Decree No. 430 - Revision to Law No. 18,892 of 1989 and its amendments)
		2015	Law No. 20,869 - Law on advertising of food
		2013	Law No. 20.670 - Create the Choose Healthy Living System
		2013	Law No. 20,656 - Regulates commercial transactions of agricultural products
5	China	2017	13th Five-Year National Food Safety Plan
		2017	National Action Plan to Contain Veterinary Antimicrobial Resistance (2017-2020)
		2015	Food Safety Law
6	Hong Kong, China		No significant changes
7	Chinese Taipei	2014	Act Governing Food Safety and Sanitation
8	Indonesia	2017	National Action Plan on Antimicrobial Resistance Indonesia 2017-2019
		2017	Regulation of the Minister of Marine Affairs and Fisheries of the R.I. No. 66/PERMEN-KP/2017 regulating salt and commodity import
		2017	Regulation of the Minister of Marine Affairs and Fisheries of the R.I. No. 50/Permen-Kp/2017 on fish products subject to mandatory quarantine, quality and safety measures
		2016	Law of the R.I. No. 7/2016 on the Protection and Empowerment of Fishermen, Fish Raisers and Salt Farmers
		2016	Regulation of the Minister of Agriculture of R.I. No. 34/Permentan/PK210/7/2016 on import of carcass, meat, Offal and/or their processed products into the Indonesian territory
		2015	Regulation of the Minister of Marine and Fishery of the R.I. No. 39/Permen-Kp/2015 Concerning Residual Control on Fish Drugs, Chemicals, and Contaminants in Fish Products for Human Consumption
		2015	Regulation of the Minister of Agriculture of RI No. 04/Permentan/PP.340/2/2015 on the Food safety inspection on plant origin fresh food import and export

		2014	Decree of the Director General of Fishery Product Processing and Marketing No. 125/KEP-DJP2HP/2014 concerning establishment of the types of Fishery Product that can be imported into the Territory of the Republic of Indonesia
		2013	Law of the Republic of Indonesia No. 19 of 2013 on the Protection and Empowerment of Farmers
		2013	Regulation of the Head of Indonesian National Agency for Drug and Food Control No. 4/2013 – No. 38/2013 on the Maximum Residue Levels of Various Food Additives (NB. each additive has a separate regulation)
		2012	Food Act (No. 18 of 2012)
9	Japan	2016	National Action Plan on Antimicrobial Resistance (AMR) 2016-2020
		2013	Food Labelling Act (Act No. 70 of 2013)
10	Malaysia	2012	Fisheries (Fish Disease Control Compliance for Exports and Imports) Regulations 2012
		2011	Malaysian Quarantine and Inspection Services Act, 2011
11	Mexico	2016	Official Mexican Standard NOM-001-SAGARPA / SCFI-2016, Commercial practices: Specifications on the storage, storage, conservation, management and control of goods or merchandise in the custody of the general warehouses of deposit. Including agricultural and fishing products
		2015	Decree by which the General Law of Sustainable Fisheries and Aquaculture is reformed and added, in terms of inspection and surveillance
		2015	Agreement that modifies the similar one by means of which the procedure to obtain, through electronic means, certificates of import and export of agricultural, livestock, aquaculture and fishing goods, published on August 9, 2012 is disclosed
		2015	Agreement establishing the General Guidelines for the authorization, operation and, where appropriate, recognition of establishments for inspection and verification of goods regulated by the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food, through the Service National Health, Food Safety and Agri-Food Quality, in Foreign Trade operations
		2014	Agreement that establishes the criteria for determining the maximum limits of toxic and polluting residues, the functioning of analytical methods, the National Program for the Control and Monitoring of Toxic Residues in goods of animal origin, aquaculture and fishery resources, and the Monitoring of Toxic Residues in animals
12	New Zealand	2017	New Zealand Antimicrobial Resistance Action Plan
		2014	Food Act 2014 (No. 32)
13	Papua New Guinea		No significant changes
14	Peru	2015	Legislative Decree No. 1195 - General Law on Aquaculture
		2013	Law 30021 for the Promotion of Healthy Eating for Children and Adolescents
		2011	Supreme Decree No. 004-2011-AG – Agrifood Safety Regulations
15	The Philippines	2013	Food Safety Act
16	Republic of Korea	2015	Korea Special Act on Safety Management of Imported Food
17	Russia	2010	CU Commission Decision No. 299 “On the application of Sanitary Measures in the Custom Union”

		2010	CU Commission Decision No. 317 “On the application of Veterinary-Sanitary Measures in the Customs Union”
18	Singapore	2017	National Strategic Action Plan on Antimicrobial Resistance
19	Thailand	2017	Thailand’s National Strategic Plan on Antimicrobial Resistance 2017-2021
		2012	Strategic Framework for Food Management in Thailand for 2012-2016
20	The United States	2017	Inspection of Eggs (Egg Products Inspection Act) (7 CFR 57.1-57.1000)
		2017	Meats, Prepared Meats, and Meat Products (Grading, Certification, and Standards) (7 CFR 54.1-54.1034)
		2016	Food Safety (21 U.S.C. 2101-2110) (Revision to 2007 law)
		2015	FDA Food Safety Modernization Act (21 U.S.C. 2201-2252) (Revision to 2011 law)
		2014	National Strategy for Combating Antibiotic Resistant Bacteria
21	Viet Nam	2017	Law on Fisheries (18/2017/QH14)
		2015	Animal Health Law
		2012	Decree No. 38/2012/ND-CP detailing a number of articles of the Law on Food Safety
		2010	Law No. 55/2010/QH12 on Food Safety

Source: Laws and regulations reported in FAO STAT’s database, available online at <http://www.fao.org/faolex/country-profiles/en/>

Note: This ranking is a non-comprehensive inventory of major legal changes related to food safety or the import-export of food products. This information is gleaned from the FAO website, which relies on self-reported information as well as on APEC documents. Thus, the reviewer makes no claims as to the completeness or accuracy of this information.