



**Asia-Pacific
Economic Cooperation**

Advancing Free Trade
for Asia-Pacific **Prosperity**

APEC Supply Chain Connectivity Framework Action Plan 2010–2015: Final Assessment

APEC Policy Support Unit
November 2016

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Produced for:

Asia-Pacific Economic Cooperation

Committee on Trade and Investment

APEC#216-SE-01.8



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EXECUTIVE SUMMARY

The APEC Supply Chain Connectivity Framework Action Plan (SCFAP) covers eight chokepoints that need to be addressed to improve the performance of supply chains in the APEC region, with a target of 10 percent reduction in time, cost and uncertainty by 2015.

The eight chokepoints are: (1) transparency; (2) infrastructure; (3) logistics capacity; (4) clearance; (5) documentation; (6) connectivity; (7) regulations and standards; and (8) transit.

This assessment of the SCFAP proceeds using a three-pronged approach, evaluating progress using: (i) external indicators; (ii) internal indicators; and (iii) a self-assessment survey.

External Indicators

The performance assessment using external indicators makes use of relevant benchmarks from the 2016 Logistics Performance Index (LPI), the 2015 Doing Business (DB) report and the 2014 Global Enabling Trade Report (GETR).

The overall LPI score shows a small improvement, still far from the 10 percent target. DB scores show very strong progress in terms of time, exceeding the pro-rata target for both imports and exports: trade transactions were completed 10 percent faster for imports and 12 percent for exports. DB cost figures (adjusted for inflation) for imports and exports also show good progress, achieving the pro-rata target in 2014. It should be noted that nominal costs still show an increase of 7 percent for imports and 2 percent for exports.

The 2016 LPI shows that traders had a significantly longer lead time to import and export in port/airport supply chains. While this finding should be interpreted carefully, there could be a need for stronger policy direction to resolve this issue.

Assessment of Internal Indicators

An analysis of internal indicators shows that around 93.6 percent of the SCFAP activities to address the eight chokepoints were completed during the period 2010–2015. The activities focused on determining key obstacles and highlighting policy recommendations and proposed actions to resolve the chokepoints.

Self-assessment Survey

The self-assessment survey indicates that, out of a total of 70 projects reported by APEC member economies, 50 projects have been completed with the remainder still ongoing. Over a quarter of these projects addressed chokepoint 4 on cross-border clearance procedures, while chokepoints 2, 7 and 8 were the least tackled. It is worthwhile to note that 22 of these SCFAP projects were deemed highly successful, earning a best practices label.

Next Steps

The overall assessment suggests that the common challenges in implementing SCFAP activities, and achieving the 10 percent target, are related to insufficient infrastructure, lack of information and consistency, and institutional problems. Nevertheless, there also exist

opportunities for collaboration and information sharing, and for harmonizing and standardizing regulatory practices to help overcome the obstacles.

Respondents are of the view that the next phase of SCFAP activities should focus on: simplifying customs and border procedures; addressing commodity-specific bottlenecks; knowledge sharing and performance benchmarking; minimizing transportation issues; conducting capacity-building and cooperation initiatives; and strengthening supply-chain security.

The review of the diagnostic reports, the self-assessment survey and analysis of external indicators in this SCFAP assessment suggests that APEC could consider the following areas:

- simplifying and improving customs and border procedures and processes.
- improving quality and access to transportation infrastructure and services.
- ensuring reliable, secure and efficient logistics services.
- fostering stronger regulatory cooperation and harmonization.
- improving the policy and regulatory infrastructure for e-commerce.

Supply-chain connectivity has been one of the core areas for APEC in strengthening and supporting regional integration. The SCFAP shows good progress in reducing time and cost for traders. Nevertheless, gaps remain and these should be addressed in the next phase of the SCFAP. The second phase should also address emerging issues in the global supply chain such as e-commerce, digital customs and cybersecurity.

1. INTRODUCTION

1.1 APEC SUPPLY CHAIN CONNECTIVITY FRAMEWORK ACTION PLAN (SCFAP)

The APEC SCFAP focuses on eight chokepoints that need to be addressed to improve supply-chain performance in time, cost and uncertainty through the implementation of relevant actions to benefit traders. The eight chokepoints are:

- 1) **Transparency:** Lack of transparency/awareness of the full scope of regulatory issues affecting logistics; lack of awareness and coordination among government agencies on policies affecting the logistics sector; absence of a single contact point or champion agency on logistics matters
- 2) **Infrastructure:** Inefficient or inadequate transport infrastructure; lack of cross-border physical linkages such as roads, bridges
- 3) **Logistics capacity:** Lack of capacity of local/regional logistics sub-providers
- 4) **Clearance:** Inefficient clearance of goods at the border; lack of coordination among border agencies, especially relating to clearance of regulated goods ‘at the border’
- 5) **Documentation:** Burdensome procedures for customs documentation and other procedures (including for preferential trade)
- 6) **Multimodal connectivity:** Underdeveloped multimodal transport capabilities; inefficient air, land and multimodal connectivity
- 7) **Regulations and standards:** Variations in cross-border standards and regulations for movements of goods, services and business travellers
- 8) **Transit:** Lack of regional cross-border customs-transit arrangements.

The eight chokepoints also include essential actions for improving regional connectivity of supply chains, such as: transportation infrastructure, logistics, clearance and cross-border standards.

1.2 MEASUREMENT FRAMEWORK

The SCFAP measurement framework comprises of three elements:

- 1) **External indicators:** These track the effects of SCFAP actions on measurable supply chain processes and outcomes.
- 2) **Internal indicators:** These track the degree to which actions under the SCFAP are in fact being implemented.
- 3) **Self-assessment survey:** This looks at member economies’ views on the potential impact of the SCFAP, recommendations for improving the remaining actions and the way forward.

Since the chokepoints are inter-related, and considering the existing data overlap for tracking performance on each chokepoint, the eight chokepoints are grouped into three performance clusters (Table 1.1).

Table 1.1 Performance clusters and SCFAP actions

Performance clusters	Chokepoints
I. Building infrastructure and capacity	2. Infrastructure 3. Logistics capacity 6. Multimodal connectivity
II. Streamlining procedures	4. Clearance 5. Documentation
III. Strengthening rules and institutions	1. Transparency 7. Regulations and standards 8. Transit

1.3 INTERIM ASSESSMENT

The 2013 SCFAP interim assessment highlighted the significant progress made by APEC in reducing time and uncertainty in supply-chain performance.¹

The self-assessment survey conducted in 2012 suggested that member economies had experienced benefits from SCFAP-related projects to improve supply-chain performance. Key benefits included:

- Greater knowledge sharing or measures to address the knowledge gap. This is the most notable benefit, as the SCFAP actions helped raise awareness on important issues related to supply-chain performance, and provided a reference or policy guidance to member economies and relevant sub-fora on further areas of improvement.
- A platform or network for economies to communicate with the industry, and to actively engage with small- and medium-sized enterprises (SMEs) to enhance their capacity. The SCFAP projects helped improve the relationship between the government and the private sector, including SMEs.
- Improved awareness and understanding of new technologies that are important to the logistics and transportation sectors.

1.4 FINAL ASSESSMENT

The final assessment presented in this report uses a framework similar to that of the interim assessment. Chapter 2 presents an analysis using external indicators. Chapter 3 looks at internal indicators and discusses the findings of diagnostic reports for the eight chokepoints. Chapter 4 reviews the findings of the self-assessment survey, which captures member economies' activities and their views of their progress on countering the eight chokepoints. It also discusses the impacts of the SCFAP. Chapter 5 concludes and provides the way forward.

¹ APEC Policy Support Unit (PSU), *The 2013 Interim Assessment for Supply Chain Connectivity Framework Action Plan* (Singapore: APEC Secretariat, 2013).

2. EXTERNAL INDICATORS ASSESSMENT

2.1 COVERAGE OF INDICATORS

This section assesses progress on the SCFAP through an analysis of agreed external indicators, based on the goal of a 10 percent improvement by 2015 in terms of time, cost and uncertainty. This final assessment includes figures from the following:

- Logistics Performance Index (LPI) 2016
- Doing Business (DB) 2015²
- Global Enabling Trade Report (GETR) 2014.

In line with common practice, the current year's report is used to obtain the previous year's data. For example, the 2014 reports are used to obtain 2013 data; and likewise with the data from 2009 onwards.

During the period of preparing this report, some indicators were not available, or not yet published; or there was a change in methodology such that it was not possible to compare the latest figures with the 2009 baseline values. In such cases, a pro-rata growth target is used to assess progress.

In terms of data coverage, some data are not available (Table 2.1). These include the 2015 data for Chile and New Zealand; all GETR, LPI-international and LPI-domestic data for Brunei Darussalam; and data on GETR and LPI-domestic for Papua New Guinea. Data on LPI costs for 2016 are also not available. Additionally, at the time of writing, GETR 2016 has not been published.

Data for three Enabling Trade Index (ETI) pillars – Customs Administration, Import-Export Procedures, Transparency of Border Administration – are no longer available in GETR 2014. Thus, data for these pillars are taken from a single pillar, i.e., Efficiency and Transparency of Border Administration (Pillar 3). Data for the ETI Business Environment sub-index are also no longer available in GETR 2014; data are taken from Operating Environment (Pillar 7) instead.

² While the latest DB report available is DB 2016, this assessment could not use the indicators from the report as there are significant changes in the methodology.

Table 2.1 Data coverage for Brunei Darussalam; Chile; Papua New Guinea; and New Zealand (2009–2015)

	Brunei Darussalam	Chile	Papua New Guinea	New Zealand	Number of economies with available data
GETR	×	√	×	√	19
DB	√	√	√	√	21
LPI-international	× (available only in 2015)	√	√	√	20
LPI-domestic	×	× for 2015	×	× for 2013, 2015	17

Note: x = data is unavailable, √ = data is available.

2.2 OVERALL IMPROVEMENTS

APEC’s performance in the LPI overall index has been relatively weak. As of the latest available data, APEC’s progress is only 0.96 percent for LPI, still far from the 10 percent target (Table 2.2). The latest available ETI figures for 2013 show progress of 0.91 percent, also far from the 2013 pro-rata target of 6.67 percent.³

Table 2.2 External indicators for overall improvements (APEC average values)

Indicators	2009	2011	2013	2015	Final/pro-rata target	Direction of progress	% change
ETI Overall Index	4.63	4.69	4.67	n.a.	4.94	up	0.91
LPI Overall Index	3.38	3.39	3.42	3.41	3.72	up	0.96

Source: GETR 2010, 2012 and 2014 reports; LPI 2010, 2012 and 2014 reports; PSU calculations.

2.3 PERFORMANCE CLUSTER I: BUILDING INFRASTRUCTURE AND CAPACITY

This performance cluster addresses chokepoints 2 (infrastructure), 3 (logistics capacity) and 6 (connectivity).

The LPI Infrastructure Index and the LPI Logistics Competence Index show progress of 1.35 percent and 2.23 percent, respectively, which is far from the 10 percent target (Table 2.3). The LPI % Shipments Meeting Quality Criteria worsened in 2015, declining by 7.92 percent.

LPI % of Shipments Meeting Quality Criteria is based on the question: ‘As a logistics provider, do you maintain indicators of services level to client? If yes, what is the percentage of imports to your country of work meeting your quality criteria for delivery to the consignee?’ This indicator reflects perceptions of the level to which business is satisfied with logistics services within the APEC region.

³ The pro-rata growth target for 2013 is calculated as: $4/6 \times 10\% = 6.67\%$.

Table 2.4 shows the analysis of data from ETI 2014. There is good to strong progress on the Transport Services Pillar and the Information and Communications Technology (ICT) Pillar. They rose by 6.9 percent and 16.07 percent, respectively, higher than the pro-rata target for 2013 of 6.67 percent. The area requiring attention is the Transport Infrastructure Pillar where the value worsened by 5.39 percent.

Table 2.3 External indicators for ‘building infrastructure and capacity’: LPI (APEC average values)

Indicators	2009	2011	2013	2015	Final target	Direction of progress	% change
LPI Infrastructure Index	3.29	3.35	3.44	3.33	3.62	up	1.35
LPI Logistics Competence Index	3.30	3.33	3.40	3.38	3.63	up	2.23
LPI % Shipments Meeting Quality Criteria	81.89	82.94	81.50	75.40	90.08	up	-7.92

Source: LPI 2010, 2012, 2014 and 2016 reports; PSU calculations.

Note: LPI data is available for 20 economies. Calculations for all years exclude data for Brunei Darussalam. Data for LPI % of Shipments Meeting Quality Criteria for Brunei Darussalam; Chile; New Zealand; and Papua New Guinea are also not included.

Table 2.4 External indicators ‘building infrastructure and capacity’: ETI (APEC average values)

Indicators	2009	2011	2013	Pro-rata target (2013)	Direction of improvement	% change
ETI Transport Infrastructure Pillar	4.88	4.93	4.62	5.20	up	-5.39
ETI Transport Services Pillar	4.58	4.53	4.89	4.88	up	6.90
ETI ICT Pillar	4.29	4.76	4.98	4.58	up	16.07

Source: GETR 2010, 2012 and 2014 reports; PSU calculations.

2.4 PERFORMANCE CLUSTER II: STREAMLINING PROCEDURES

This performance cluster addresses chokepoints 4 (clearance) and 5 (documentation).

According to the DB indicators, APEC recorded strong progress in terms of quantitative indicators for time to trade. The indicators for time to trade exceeded the 2014 pro-rata target or benchmark of 8.33 percent,⁴ as seen in Table 2.5.

⁴ The pro-rata benchmark is calculated based on the distance between the baseline year and the latest year of the available data. For 2014, the pro-rata benchmark is calculated as follows: $5/6 \times 10\% = 8.33\%$.

Table 2.5 External indicators for ‘streamlining procedures’: DB time and documents figures (APEC average values)

Indicators	2009	2011	2013	2014	Pro-rata target (2014)	Direction of progress	% change
DB Time to Import	14.81	13.86	13.33	13.30	13.58	down	-10.19
DB Time to Export	14.62	13.57	13.14	12.81	13.40	down	-12.41
DB Documents to Import	5.76	5.67	5.62	5.65	5.28	down	-1.94
DB Documents to Export	4.76	4.71	4.71	4.70	4.37	down	-1.30

Source: DB 2010, 2012, 2014 and 2015 reports; PSU calculations.

The LPI 2016 report defines lead time to import as ‘the median time (the value for 50 percent of shipments) from port of discharge to arrival at the consignee’. The LPI time indicators measure the time taken to complete trade transactions for port and airport supply chains. Indicators for LPI lead time to import and export in Table 2.6 show traders took about half a day longer to import and export compared with the 2009 APEC average.⁵ This is a concern since reducing time to import and export is one of the ultimate goals of the SCFAP. Five economies pulled up the average of LPI lead time to import,⁶ which explains the sudden increase from 1.94 in 2013 to 3.41 in 2015 (Table 2.6).

Large increases in LPI lead times should be interpreted carefully. According to the World Bank, the LPI lead times survey (which forms the domestic section of the LPI) is based on responses gathered from logistics professionals based within an economy;⁷ and the number of responses is lower because only respondents based inside that economy provide answers. These lower numbers could lead to a higher sampling error. This is in contrast to the international section of the LPI (from which the economy ranking is derived), where respondents are based outside the economy in question, and response rates are higher.

An additional possible explanation for the large variation is related to the geographic features of the LPI survey. The World Bank explained that the survey does not control for the location of the respondents in the economy, as well as the respondents’ preferred mode of transportation, which both influence the variation of responses to the survey questions across years, particularly in large economies.

⁵ Calculation for LPI lead time to import and export excludes data for Brunei Darussalam; Chile; New Zealand; and Papua New Guinea.

⁶ Five economies are pulling up the average with five to seven hours of lead time compared to other economies which only have around three hours of lead time to import.

⁷ Email communication with World Bank, 15 August 2016.

Table 2.6 External indicators for ‘streamlining procedures’: LPI time and documents figures (APEC average values)

Indicators	2009	2011	2013	2015	Final Target	Direction of progress	% change
LPI Lead Time to Import	2.84	2.53	1.94	3.41	2.55	down	20.28
LPI Lead Time to Export	2.15	2.12	1.71	2.41	1.93	down	12.33
LPI Documents to Import	4.06	3.59	3.53	2.88	3.66	down	-29.27
LPI Documents to Export	3.53	2.82	2.94	3.44	3.18	down	-2.69

Source: LPI 2010, 2012, 2014 and 2016 reports; PSU calculations.

Note: Calculation excludes Brunei Darussalam; Chile; New Zealand; and Papua New Guinea as data for these economies are not available in the LPI 2016 report.

For documentation-related indicators, which measure the complexity of import and export transactions, the LPI documentation indicator on import shows very strong progress for APEC in 2015, exceeding the 10 percent target; while the DB indicator on import documentation shows only a slight reduction of over 1 percent, far from the pro-rata target of 8.33 percent (refer to Table 2.5 for DB and Table 2.6 for LPI).

In terms of documents required to comply with export procedures as measured by the LPI, less progress was seen. APEC averages declined from 3.53 to 3.44, equivalent to an almost 3 percent reduction rate (Table 2.6).

Costs to import and export also went down in real terms as of 2014. In particular, calculations for real import cost using GDP deflator and the US consumer price index (CPI) yield average declines of 10.14 percent and 4.17 percent, respectively. However, cost to import increased in nominal terms by 6.76 percent (Table 2.7).

The same story is observed in real cost to export, which decreased by 8.63 percent and 8.30 percent when computed using GDP deflator and the US CPI, respectively. In nominal terms, export costs went up slightly by 2.08 percent (Table 2.7).

The LPI cost figures show a nominal increase in trade costs ranging from 2.4 percent to 7.5 percent. In real terms (inflation adjusted by GDP deflator or the US CPI), LPI figures show a reduction ranging from 1 percent to 9.8 percent (Table 2.8).

Table 2.7 External indicators for ‘streamlining procedures’: DB cost figures (APEC average values)

Indicators	2009	2011	2013	2014	Pro-rata target (2014)	Direction of progress	% change
DB Cost to Import (nominal values)	957.33	953.48	990.81	1022	877.56	down	6.75
DB Cost to Import (domestic GDP deflator)	816.99	737.02	736.35	734.15	748.91	down	-10.14
DB Cost to Import (US CPI)	871.23	827.73	830.50	834.88	798.63	down	-4.17
DB Cost to Export (nominal values)	897.19	893.76	910.95	915.85	822.42	down	2.08
DB Cost to Export (domestic GDP deflator)	749.84	681.74	682.43	685.10	687.35	down	-8.63
DB Cost to Export (US CPI)	816.50	775.89	763.56	748.75	748.46	down	-8.30

Source: DB 2010, 2012, 2014 and 2015 reports; PSU calculations.

Table 2.8 External indicators for ‘streamlining procedures’: LPI cost figures (APEC average values)

Indicators	2009	2011	2013	Pro-rata target (2013)	Direction of progress	% change
LPI Cost to Import (nominal values)	799.83	848.72	819.06	746.51	down	2.40
LPI Cost to Import (domestic GDP deflator)	673.35	626.56	606.82	628.46	down	-9.88
LPI Cost to Import (US CPI)	727.90	736.79	686.53	679.37	down	-5.68
LPI Cost to Export (nominal values)	705.33	716.83	758.28	658.31	down	7.51
LPI Cost to Export (domestic GDP deflator)	591.44	542.59	570.02	552.01	down	-3.62
LPI Cost to Export (US CPI)	641.90	622.29	635.59	599.10	down	-0.98

Source: LPI 2010, 2012 and 2014; PSU calculations.

Note: Calculation excludes Brunei Darussalam; Papua New Guinea; and New Zealand, as data for these economies are not available in the LPI 2014 report.

For the performance of customs and border agencies, the LPI Customs Index shows slow progress. APEC’s average for LPI’s Customs Index is 3.28 for the year 2015, still below the final benchmark of 3.47 (Table 2.9), with a progress of 3.81 percent. This score is based on customer’s perception of the efficiency of the clearance process by border control agencies. On the other hand, the LPI indicator on Physical Inspection (Table 2.9) shows very strong progress from 2009 to 2015, declining by 41.52 percent.

Table 2.9 External indicators for ‘streamlining procedures’: LPI customs-related figures (APEC average values)

Indicators	2009	2011	2013	2015	Final Target	Direction of progress	% change
LPI Customs Index*	3.11	3.13	3.25	3.20	3.42	up	3.74
LPI % Physical Inspection**	12.01	10.14	8.88	7.02	10.81	down	-41.52

Source: LPI 2010, 2012, 2014, 2016; PSU calculations.

* Data available for 20 economies.

** Calculation excludes Brunei Darussalam; Chile; New Zealand; and Papua New Guinea, as data for these economies are not available in the LPI 2016 report.

The ETI Customs Administration Pillar shows good progress, improving by 7.53 percent, higher than the pro-rata target for 2013 of 6.7 percent. The ETI Import-Export Procedures Pillar which measures the efficiency of the clearance processes at the border shows very weak progress, worsening by almost 2 percent.

Table 2.10 External indicators for ‘streamlining procedures’: ETI customs-related figures (APEC average values)

Indicators	2009	2011	2013	Pro-rata target (2013)	Direction of improvement	% Change
ETI Customs Administration Pillar	4.82	4.86	5.18	5.14	up	7.53
ETI Import-Export Procedures Pillar	5.27	5.31	5.18	5.63	up	-1.70

Source: DB 2010, 2012 and 2014; GETR 2010, 2012 and 2014; PSU calculations.

Note: Data for three ETI pillars – Customs Administration, Import-Export Procedures, and Transparency of Border Administration – are no longer available in the case of GETR 2014. Thus, data for these pillars are taken from a single pillar, i.e., Efficiency and Transparency of Border Administration (Pillar 3).

2.5 PERFORMANCE CLUSTER III: STRENGTHENING RULES AND INSTITUTIONS⁸

This performance cluster addresses chokepoints 1 (transparency), 7 (regulations and standards), and 8 (transit).

The ETI Transparency of Border Administration Pillar shows strong progress, exceeding the 2013 pro-rata benchmark with an improvement of 15 percent (see Table 2.11). This pillar assesses the pervasiveness of undocumented extra payments or bribes connected with imports and exports, as well as overall perceived degree of corruption.

On the other hand, the ETI Business Environment sub-index yields a lower score in 2013, equivalent to a slight decrease of 0.78 percent. This sub-index looks at the quality of governance as well as at the overarching regulatory and security environment that impact businesses of active importers and exporters. It is worthwhile to note that in GETR 2014, the Business Environment sub-index has been changed to the Operating Environment index.

⁸ This section is taken from a 2014 report: APEC PSU, *External Indicators Update for the Supply Chain Connectivity Framework Action Plan* (Singapore: APEC Secretariat, 2014).

Table 2.11 External indicators for ‘strengthening rules and institutions’ (APEC average values)

Indicators	2009	2011	2013	Pro-rata benchmark (2013)	Direction of progress	% change
ETI Transparency of Border Administration Pillar[^]	4.52	4.50	5.18	4.82	up	14.67
ETI Business Environment Sub-Index[#]	4.74	4.69	4.71	5.06	up	-0.78

Source: GETR 2010, 2012 and 2014; PSU calculations.

[^] Data for three ETI pillars – Customs Administration, Import-Export Procedures, and Transparency of Border Administration – are no longer available in GETR 2014. Thus, data for these pillars are taken from a single pillar, i.e., Efficiency and Transparency of Border Administration (Pillar 3).

[#] Data for the ETI Business Environment sub-index is also no longer available in GETR 2014; data is taken from Operating Environment (Pillar 7) instead.

3. INTERNAL INDICATORS ASSESSMENT

This chapter examines descriptive actions and/or implemented projects that target the eight chokepoints. Actions or projects discussed here were active between 2011 and 2014 or have already been completed. The projects and their goals are also described. The information is taken from the APEC Committee on Trade and Investment (CTI) report to Ministers from 2012 to 2014. This section also includes key findings from the diagnostic reports for the eight chokepoints.

According to the 2014 CTI report to Ministers, the majority of SCFAP activities (93.6%) had been completed. Only a very few were ongoing or with no information (Table 3.1). A total of 102 activities were completed within the eight chokepoints over the period 2010 to 2014.

Table 3.1 Status of SCFAP activities (2010–2014)

Chokepoint	Completed activities	Ongoing/ no information
1	12	2
2	10	0
3	12	1
4	8	1
5	20	1
6	27	0
7	8	1
8	5	1
Total	102	7

3.1 CHOKEPOINT 1: TRANSPARENCY

Chokepoint 1 is about transparency and government coordination, particularly those affecting the logistics sector. Around twelve activities have been implemented based on the five actions listed in Appendix 8 of the 2014 CTI report to Ministers.⁹

Activities related to this chokepoint include the research for a diagnostic report that would serve to provide recommendations on capacity-building activities and their implementation. Other projects are APEC Guidelines for Advance Rulings, the Symposium on Supply Chain Connectivity, the Compendium of Best Practices of National Logistics Associations, and improvement of the understanding of logistics services.

The SCFAP diagnostic report for chokepoint 1 highlights four pillars: Coordination of Policies; Stakeholder Engagement and Publication; Anti-Corruption; and Business Certainty; and

⁹ For the SCFAP list of actions, see: APEC Committee on Trade and Investment (CTI), Appendix 8 in *2014 CTI Annual Report to Ministers* (Singapore: APEC Secretariat, 2014), http://publications.apec.org/publication-detail.php?pub_id=1589

provides policy guidance under each pillar (Table 3.2).¹⁰ On coordination of policies, the diagnostic report notes that only 9 out of 21 economies have established effective systems for informing appropriate bodies when preparing a new regulatory measure. Only 11 economies managed to effectively integrate trade, competition and market-openness considerations into the regulatory development processes.

Table 3.2 Four pillars of chokepoint 1 (transparency)

Pillars	Policy Guidance
Coordination of Policies	<ul style="list-style-type: none"> • Having an established central body or institution tasked with coordination and oversight of the regulatory reform initiatives. • Informing and consulting with all official bodies when developing a new or reforming an existing measure to avoid duplication. • Integrating trade, competition, and economic considerations into decision-making processes that include direct involvement with trade and officials.
Stakeholder Engagement and Publication	<ul style="list-style-type: none"> • Procedural transparency in the development of trade-related policies. • Availability of information on rules and regulations impacting import and export activities. • Establishment and standardization of procedures for public comments. • Consideration of trade and competitiveness.
Anti-Corruption	<ul style="list-style-type: none"> • Apply rules and regulations affecting the logistics sector in a consistent and non-discretionary manner. • Apply rules and procedures relating to the trade in a consistent, predictable, and uniform manner with integrity so as to minimize uncertainty. • Provide clear and precise procedural guidance to the appropriate authorities with standard policies and operating procedures and be applied in a non-discretionary manner.
Business Certainty	<ul style="list-style-type: none"> • Provide access to due process and legal recourse. • Provide for due process rights and clear mechanisms designed to ensure the enforceability of those rights. • Provide an appeals system that is accessible, transparent and accountable for all stakeholders including foreign stakeholders. • Provide enquiry points for interested parties to address questions on customs procedures; and provide customs forms and documents within a reasonable time period, including through the internet.

3.2 CHOKEPOINT 2: INFRASTRUCTURE

Chokepoint 2 is about inadequate transport infrastructure and lack of cross-border physical linkages. From the five listed actions, ten activities have been implemented.

Activities related to this chokepoint include a Transport, Energy and Intermodal Freight workshop on the development of analytical tools and metrics to assess and compare various Transit Oriented Development (TOD) projects. The goal was to maximize the benefits of TOD projects through improving energy efficiency, reducing greenhouse gas emissions and minimizing congestion. Other projects and actions include an examination of individual transportation and trade policies that uses a gateway of trade corridor approach; analytical work

¹⁰ E. Ferro et. al., *Strengthening Supply Chains in APEC: Transparency, Cooperation, and Capacity Building – Analysis of Chokepoint 1 of the APEC Supply Chain Connectivity Framework* (Washington, DC: World Bank, 2013).

on logistics infrastructure; sharing of best practices for seamless intermodal cargo movement; and the private-public partnership (PPP) implementation model to facilitate development of new transport infrastructure.

The diagnostic report on Chokepoint 2 emphasizes the concept of ‘informed infrastructure’ which describes the concept of planned and coordinated development of facilities such as roads, railways, terminals and ports including the systems that support their effective utilization.¹¹ An end-to-end approach to infrastructure planning is necessary to ensure proper linkages between different modes of infrastructure, which will encourage positive externalities and thus maximize economic returns.

The report further notes that major obstacles to investment include the lack of bankable and properly designed projects and the existence of legal, regulatory and institutional barriers that constrains the mobilization of capital into infrastructure projects. The report provides two key recommendations seen as crucial to the next phase of the SCFAP:¹²

- **Building a Well-informed Supply Chain Infrastructure Project Pipeline:** This requires not only a well-designed, rigorously developed pipeline of bankable, economically viable projects but these projects must also be prioritized based on their potential economic and social return on investment.
- **Improving the PPP and Infrastructure Investment Enabling Environment:** This will determine the ability to attract private sector stakeholders (investors, sponsors, contractors and operators) of infrastructure. Risk factors are becoming the key decision variable for many multinational operators and investors.

The diagnostic report also provides observations at the sectoral level:

- **Electronics and Optical Equipment:** Lack of quality air infrastructure constrains the ability of an economy to contribute a larger share of value to the region’s trade in electronics; more investment in air transport could unlock growth in the sector.
- **Basic Metals and Products:** APEC as a region could enhance growth potential in this sector through investments that improve the quality of sea ports.

3.3 CHOKEPOINT 3: LOGISTICS CAPACITY

Chokepoint 3 relates to the lack of capacity of local and regional logistics sub-providers, especially SMEs. From the four listed actions, twelve activities have been implemented.

The project on Enhancing Logistics Performance through Training and Networking for APEC/Local/Regional Logistics Sub-providers was implemented over the period 2012 to 2014. The project focused on reviewing constraints affecting engagement by SMEs. It had three main objectives: (i) improve awareness of the changing international business environment; (ii) promote awareness and understanding of relevant policies and regulations in each APEC

¹¹ E. Ferro et.al., *Transport Infrastructure along APEC’s Critical Supply Chains: Analysis for Informed Capacity Building* (Washington, DC: World Bank and the Australian Department of Foreign Affairs and Trade, February 2014).

¹² *Ibid.*, 7.

economy; and (iii) promote awareness and proficiency in modern cross-border supply-chain practices and advanced logistics technologies.

Additionally, in 2013, research on the building of an International Logistic Support (ILS) Network was initiated. A conference was held in 2014 which focused on emerging trends and best practices in supply-chain connectivity, including academic and industry perspectives on current models undertaken by SME logistics sub-providers to engage in cross-border trade.

Proposed actions include those that would contribute to: raising the quality of APEC economies' logistics services and management; increasing awareness and understanding of supply-chain connectivity in the context of global value chains; and considering recent innovations and new technologies by holding conferences and engaging other economies in the initiative.

The diagnostic report on chokepoint 3 observes that cross-border service capabilities are a primary weakness of SME logistics providers.¹³ In many instances, SMEs are not taking advantage of available resources in policy, finance and education due to information distribution and access. This suggests that APEC economies need to strengthen their efforts in two key policy areas:

- **Tailoring Transition and Adaptation Capacity Building to fit SMEs' Unique Circumstances:** Most SMEs have limited time, resources and financial access; they thus prioritize their existing core business processes (those already generating income) over engaging in lengthy education processes.
- **Improving Cross-economy Information Distribution:** There is a need for a better mechanism to disseminate knowledge and information more quickly and effectively. The report suggests establishing an International Logistics Platform (ILP) to Support Smaller Logistics Service Providers. The platform should serve three primary purposes: (i) provide a logistics service communication platform in each economy's own language; (ii) provide a unified distribution mechanism for each economy's regulating bodies to distribute relevant trade information regarding their economy; and (iii) provide standardized data to observe changes in behaviour and trends in real time.

3.4 CHOKEPOINT 4: CLEARANCE

Chokepoint 4 in supply-chain connectivity refers to the inefficient clearance of regulated goods at the border and the lack of coordination among border agencies. From the three actions under this chokepoint, eight activities have been completed.

Two active projects are included in this section. The first project is a study on the status of implementation of single window system for cargo clearance and the difficulties in developing the system. The APEC Sub-Committee on Customs Procedures (SCCP) continues this work, which is projected to be completed by 2020. In the second project, SCCP accelerates seamless data sharing between and among single window systems.

Other activities include a regional workshop to identify bottlenecks in implementing single window systems in APEC member economies. A second workshop focused on sharing

¹³ Logistics Planning Academy, *Situational Review of the APEC SME Logistics Service Provider: Preliminary Investigation into Chokepoint 3 of the 2009 Supply Chain Connectivity Framework Plan* (Singapore: APEC Secretariat, 2011).

information on good and bad practices, difficulties and countermeasures in implementing single window systems as well as the interoperability of single window systems. Another activity is a Time Release Survey in 2013 to analyse the current policies of member economies.

The diagnostic report notes that APEC economies vary in the way clearance is processed at the border.¹⁴ Nevertheless, cross-border movement of goods continues to advance in the region. To further facilitate this movement, the report provides several policy recommendations:

- **Developing single window systems:** Alongside international interoperability efforts, support should be provided to encourage domestic interoperability.
- **Implementing World Customs Organization (WCO) guidelines on immediate release of consignments and Time Release Surveys:** Greater participation in the APEC Pathfinder to Enhance Supply Chain Connectivity by Establishing a Baseline De Minimis Value should be encouraged. Economies should be given assistance with data collection for Time Release Surveys.
- **Streamlining border institutions:** Streamlining the interactions of border institutions and associated processes facilitates goods clearance at the border, which reduces time, cost and uncertainty. This could be achieved through strengthening cooperation between customs authorities and other government agencies both within and across borders.
- **Establishing customer service in clearance:** Maintaining a single point-of-contact to help traders resolve process issues arising from delays is a sound practice.
- **Introducing pre-arrival customs processing and expedited release of goods:** Advance submission of import documentation and other required information, including manifests, allows processing to commence prior to the arrival of goods, which could minimize delay and enable immediate release on arrival. This offers predictability and lower risks for traders.
- **Allowing e-payment of customs charges and separating goods release from fiscal control:** This results in simplified and secure transactions as well as lower warehouse and storage costs.

3.5 CHOKEPOINT 5: DOCUMENTATION

Checkpoint 5 focuses on removing burdensome procedures and documentation at customs points. From the six actions listed, twenty activities have been completed. Examples of these activities are described below.

The APEC Self-Certification of Origin Capacity Building Program was adopted in 2010. The APEC Market Access Group (MAG) held workshops and reported on a yearly basis the progress toward implementing self-certification. In 2011, MAG released surveys on the programme's two remaining elements: (i) harnessing IT to ease documentation and procedures related to APEC elements for simplifying customs documents and procedures; and (ii) minimum data requirements in free trade agreements (FTAs).

¹⁴ US Agency for International Development (USAID), *Strengthening Supply Chains in APEC: Transparency, Cooperation, and Capacity Building – Analysis of Checkpoint 4 – Cross-Border Clearance Procedures*, Arlington: Nathan Associates Inc., 2014.

The APEC website on Tariff and Rules of Origins (ROOs), called WebTR, was completed and launched in 2010. In 2013, members were able to make WebTR available in the English language.

The Korea Customs Service with the WCO has been conducting an analytical study on the effectiveness of Authorized Economic Operators Mutual Recognition Arrangements (AEO MRAs). AEO MRA is a potential initiative to simplify document examination and expedite clearance that will result in significant reduction of clearance processing time.

In 2013, an exchange system for electronic certificates of origin under the Korea–Chile FTA was discussed. The following points were noted: agreement on the standard items of FTA electronic certificates of origin and the schedule for introduction; diplomatic notes and uniform rules to guarantee legal effectiveness; introduction of electronic Bill of Lading (e-B/L) at the APEC Electronic Commerce Steering Group (ECSG); and necessary steps for the practical use of e-B/L.

Another project proposed was the simplification of customs procedures based on the revised Kyoto Convention. Ten economies have agreed to the Kyoto Convention but have not adopted the principles for trade facilitation yet.

The diagnostic report on chokepoint five focuses on the issue of certificates of origin with the following recommendations:¹⁵

- Maintain a programme to enhance traders' capacity to self-issue certificates of origin for entry of goods receiving preferential treatment.
- Encourage economies to refrain from requiring traders to issue certificates of origin for entry of goods receiving non-preferential treatment.
- Improve the conditions of the regulatory environment related to the issuance of certificates of origin to offer trade benefits.
- Maintain an electronic system for clearing goods at the border that can adapt to future technologies related to online or electronic forms.
- Publish information related to certificates of origin in a single online location (establishment of WebTR).
- Maintain an electronic system through which traders can submit electronic certificates of origin for entry of goods receiving preferential treatment.
- Maintain an open and transparent dispute settlement mechanism with published timelines and procedures for arbitrating disputes between importers and customs agencies.

3.6 CHOKEPOINT 6: MULTIMODAL CONNECTIVITY

This chokepoint relates to how multimodal connectivity could facilitate a more integrated and efficient transportation network thus supporting cross-border trade. From the 11 listed actions, 27 activities have been completed.

Among the activities under this chokepoint is a case study on the Electronic Freight Management (EFM) Information Exchange Platform under the auspices of the APEC

¹⁵ Ministry of Foreign Affairs, Republic of Korea, *Diagnostic Report for Chokepoint 5 of the APEC Supply Chain Connectivity Framework* (2014).

Transportation Working Group in 2014. Another project, completed in 2010, examined the economic impact of enhanced multimodal connectivity in the Asia-Pacific region.

The diagnostic report on chokepoint 6 makes several recommendations:¹⁶

- Encourage the participation of civil society and private-sector groups in infrastructure planning.
- Consider ancillary logistics services to be a priority component of transportation and multimodal infrastructure investment planning.
- Provide specific workforce development programmes for transport and logistics skills training.

3.7 CHOKEPOINT 7: REGULATIONS AND STANDARDS

Chokepoint 7 deals with the differences in regulations and standards on cross-border movement of goods, services and business travellers. There are five listed actions, under which eight activities have been implemented.

The first initiative was to improve submarine cable protection through a study of the economic impact of disruptions to the submarine cable network in the Asia-Pacific region. Another project was the improvement of electronic data interchange linkages between seaports. In 2013, a workshop was held in Shanghai to raise awareness of the benefits of electronic port linkages. Other projects have focused on reducing international mobile roaming (IMR) charges and improving road safety standards for heavy vehicles.

The following policy directions are provided by the diagnostic report on chokepoint 7:¹⁷

- **International telecommunications:** Commit member economies to adhere to common standards such as the United Nations Convention on the Law of the Sea (UNCLOS) that serve as a platform for coordination on international telecommunications.
- **Online security:** Identify best practices in cybersecurity initiatives within APEC that establish a secure, sustainable online environment.
- **International mobile markets:** Governments are to ensure that carriers disseminate information on costs for IMR for better price transparency and consumer awareness.
- **Heavy vehicle transport:** APEC economies should develop a good practice manual for heavy vehicle safety and establish a driver training programme that address variations in cross-border standards with regard to heavy vehicle use, roads and operational practice.
- **Electronic data interchange:** Member economies should adopt the electronic information exchange framework designed and proposed at the APEC workshop on electronic data interchange.

¹⁶ USAID, *Strengthening Supply Chains in APEC: Transparency, Cooperation, and Capacity Building – Analysis of Chokepoint 6 – Multimodal Transport Capabilities and Connectivity* (Arlington: Nathan Associates Inc., 2014).

¹⁷ USAID, *Strengthening Supply Chains in APEC: Transparency, Cooperation, and Capacity Building – Analysis of Chokepoint 7 – Variations in Cross-Border Standards and Regulations for Movements of Goods, Services and Business Travellers* (Arlington: Nathan Associates Inc., 2014).

- **Good regulatory practices:** Capacity-building efforts to support economies in implementing regulatory impact analyses would be beneficial. The APEC Economic Committee has done significant work on this issue, and there are ongoing initiatives at the APEC Senior Officials' level.

3.8 CHOKEPOINT 8: TRANSIT

Chokepoint 8 is about the lack of regional cross-border customs-transit arrangements. There are six actions listed under which five activities have been implemented.

A 2014 workshop focused on formulating a set of guidelines for APEC customs transit to address issues such as the lack of harmonization among APEC economies in granting preferential treatment to goods through third-party territories. This was finalized inter-sessionally by the SCCP as a 'living' document.

Also, seven impediments related to cross-border customs-transit arrangements for logistics companies operating in the APEC region have been identified;¹⁸ and recommendations for resolving them presented.¹⁹

¹⁸ APEC CTI, 'Information paper on impediments relating to cross-border customs-transit arrangements' (2011/SOM1/CTI/018, Singapore: APEC Secretariat, 2011).

¹⁹ APEC CTI, 'Addressing impediments in cross-border customs transit' (2011/SOM2/CTI/012, Singapore: APEC Secretariat, 2011).

4. ANALYSIS OF THE SELF-ASSESSMENT SURVEY

4.1 THE PROJECTS

The self-assessment survey comprises reports on 70 projects – 50 completed and 20 ongoing – by member economies and various sub-fora. These projects cover a variety of topics, ranging from single window initiatives to customs control, infrastructure development and logistics coordination. Most of the projects take the form of workshops, followed by the conduct of research and studies (Figure 4.1). ‘Others’, which includes new regulations or websites, also form a significant proportion of the projects.

Over a quarter of projects address Chokepoint 4 (cross-border clearance procedures), much more than any other chokepoint. Chokepoints 7 (standards and regulations), 8 (customs transit) and 2 (transport infrastructure) were addressed the least (

Figure 4.2).

Figure 4.1 Self-assessment survey: Type of project

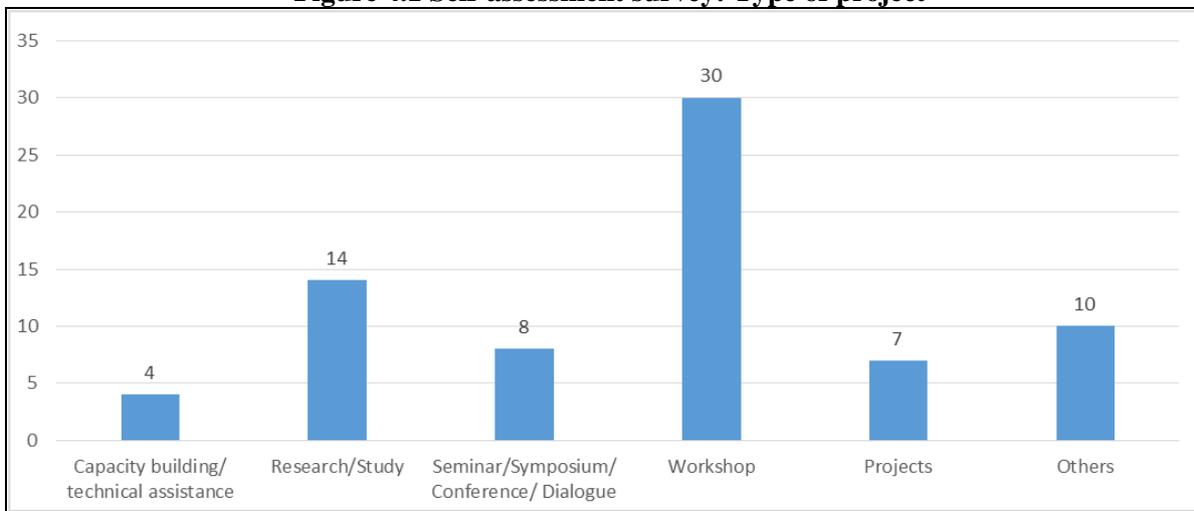
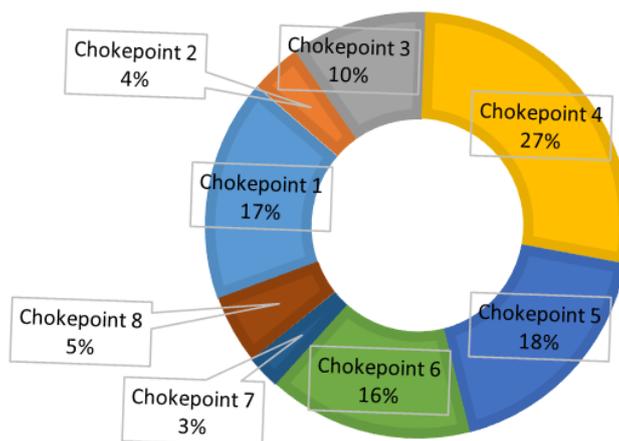


Figure 4.2 Self-assessment survey: Projects by chokepoints



4.2 THE OUTCOMES

Participants were asked to rate their projects based on four outcomes (Policy, Time, Cost and Uncertainty Improvements) that impacted supply-chain performance, as well as Overall Improvement.

Most projects appear to rank well ('Excellent' or 'Good') on Policy Improvements, with no 'Poor' or 'None' responses (Figure 4.3). Uncertainty Improvements also had a high percentage of 'Excellent' and 'Good' responses, with half of all respondents rating their projects as 'Good' (Figure 4.4). Time and Cost Improvements in contrast, received relatively lower levels of 'Excellent' and 'Good' ratings and higher percentages of 'None' ratings.

In terms of Overall Improvement, more than 90 percent of the projects were rated 'Excellent' and 'Good', and none rated 'Poor' or 'None'. This indicates that projects were generally making improvements on supply-chain performance. Underlining this is the observation that more than half of all projects were rated 'Excellent' or 'Good' on all four outcomes.

Figure 4.3 Self-assessment survey: Projects by policy and time improvements

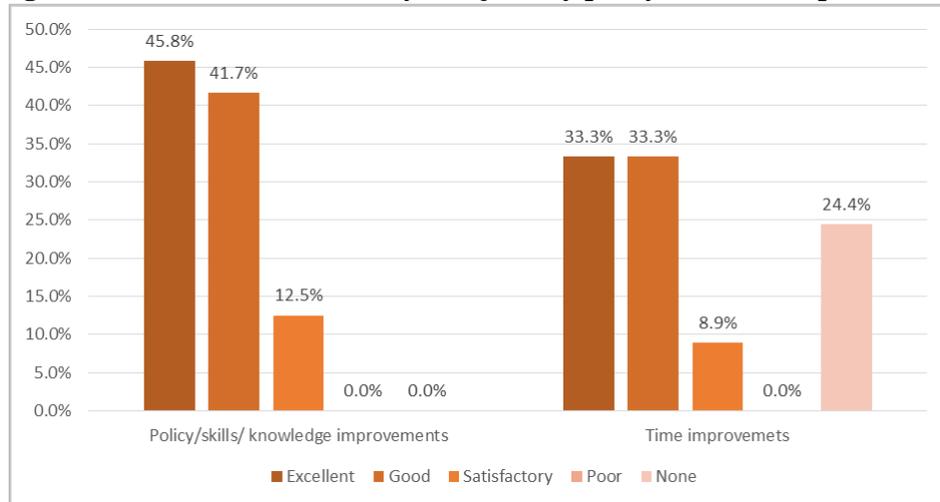


Figure 4.4 Self-assessment survey: Projects by cost and uncertainty improvements

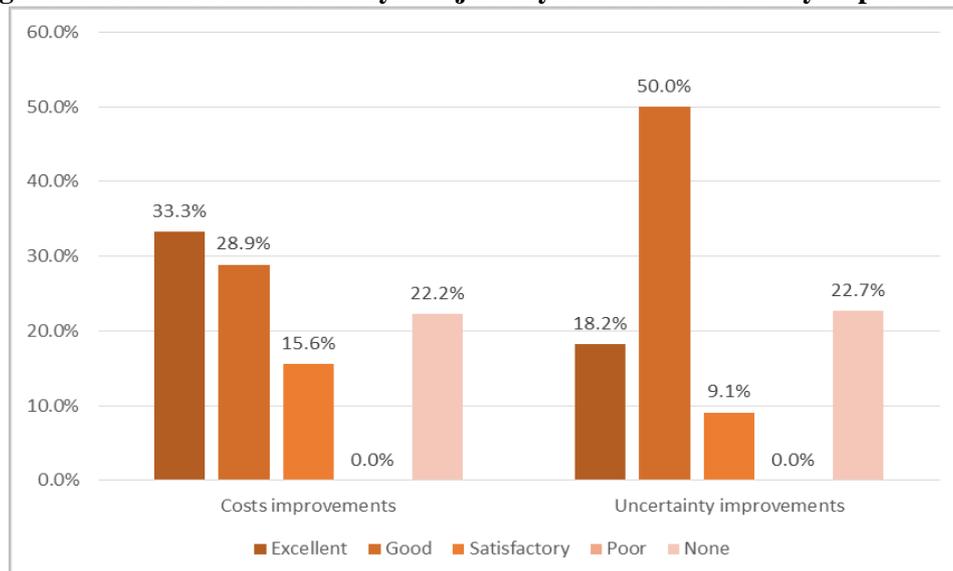
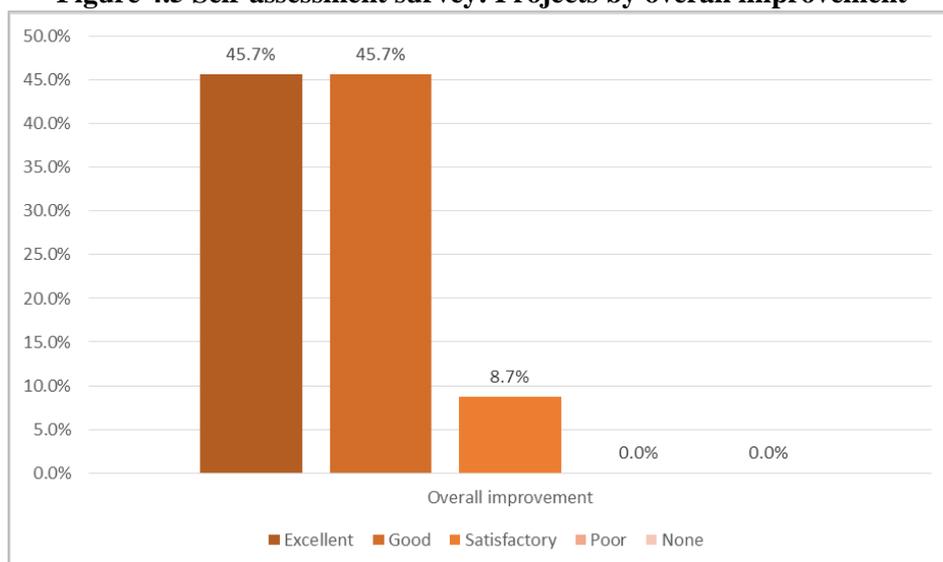


Figure 4.5 Self-assessment survey: Projects by overall improvement

4.3 THE IMPACTS

Most economies and sub-fora (32 projects) considered ‘providing useful recommendations and best practices’ as tangible impacts of their projects. Common recommendations mentioned by economies include best practices to improve customs procedures, Authorized Economic Operators (AEO) programmes, single window initiatives and environmentally friendly initiatives. ‘Addressing crucial knowledge gaps’ (25 projects) had the next highest number of responses. However, there was not much elaboration on how projects managed to address these gaps.

4.4 BEST PRACTICES

Member economies/sub-fora identified 22 projects they considered to be some of the most successful under the SCFAP. These projects addressed the eight chokepoints, with the majority focused on the three clusters below.

4.4.1 Cluster I: Building Infrastructure and Capacity

Ten projects were submitted under this cluster:

- TPT 05/10A Road Safety Measures for Heavy Vehicles in APEC Transport Supply Chains
- Seminar on the Performance Measurement of Supply Chains in the Asia-Pacific Region
- Asia-Pacific Model E-port Network (APMEN)
- Launching Workshop for APEC Cooperation Network on Green Supply Chain Tianjin Pilot Center
- APEC Trade Repository
- Capacity Building and Technical Assistance to Implement Programs on Expedited Shipments
- APEC Workshop on New Way to Promoting Supply Chain Connectivity in the Context of Global Value Chains (GVCs)

- The Last-Mile of Supply Chain-Third Party Logistics Forum and Technical Visits
- Promoting Public-Private Partnership (PPP) to Develop Dry Ports and Logistics Parks in order to Enhance APEC's Supply Chain Connectivity
- Supply Chain Visibility Feasibility Study.

These projects included the introduction and application of new technology to improve regional supply-chain connectivity. Effective infrastructure solutions, integrated trade facilitation measures and institutional guarantees through PPPs were also provided. The capacity of representatives from a wide range of economies were also improved. Actions of APEC economies were coordinated and a network of cooperation on a green supply chain was strengthened. The quality of APEC economies' logistics services and management was also improved. The PPP Centre supports future APEC works and assists in continuing the strong growth in the Asia-Pacific region. Other projects provided feasible solutions for balancing trade facilitation and security. Other economies will be able to control the movement of cargoes and realize the advantages of transnational cooperation with the application of Radio-Frequency Identification (RFID) e-seals.

4.4.2 Cluster II: Streamlining Procedures

Eight projects were submitted under this cluster:

- Customs Control on Cross Border E-Commerce
- APEC Capacity Building Workshop on Single Window
- APEC AEO Regional Capacity Building Workshop
- APEC Workshop on Customs Control over Cross-Border e-Commerce
- Establishment of Single Window Systems and Discussion Sessions
- Joint Border Management System
- 2012 APEC Regional Workshop on Single Window
- Implementation of Single Window System (to reduce time on import and export process and minimize cost of doing business).

The main objective of the projects was to streamline procedures through sharing of information. The majority of the projects were workshops and studies to promote or demonstrate the results of a programme. The positive results of these projects were expected to attract inactive members to participate.

The customs control project encouraged APEC customs to pay more attention to promoting the healthy growth of cross-border e-commerce in pursuit of better development of the trade economy.

Other than that, discussion sessions suggested that there should be a lead agency to develop a single window system since strong leadership is necessary to unite all the relevant agencies. Specifically, the Trade Single Window under the Joint Border Management System will enable parties involved in international trade and transport to electronically submit craft and cargo clearance data. Benefits for industry will include a single online application process, automated response, and the ability to manage details online and to send notifications to other parties. Clients will also be able to give permission to a broker to act on their behalf. Benefits for border agencies include less paperwork, less effort on routine approvals, and shared registration. Other projects promoted the development and international interoperability of the single window

system. Outcomes included sharing of the latest information and the experiences of economies that have introduced single window systems.

4.4.3 Cluster III: Strengthening Rules and Institutions

Four projects were submitted under this cluster:

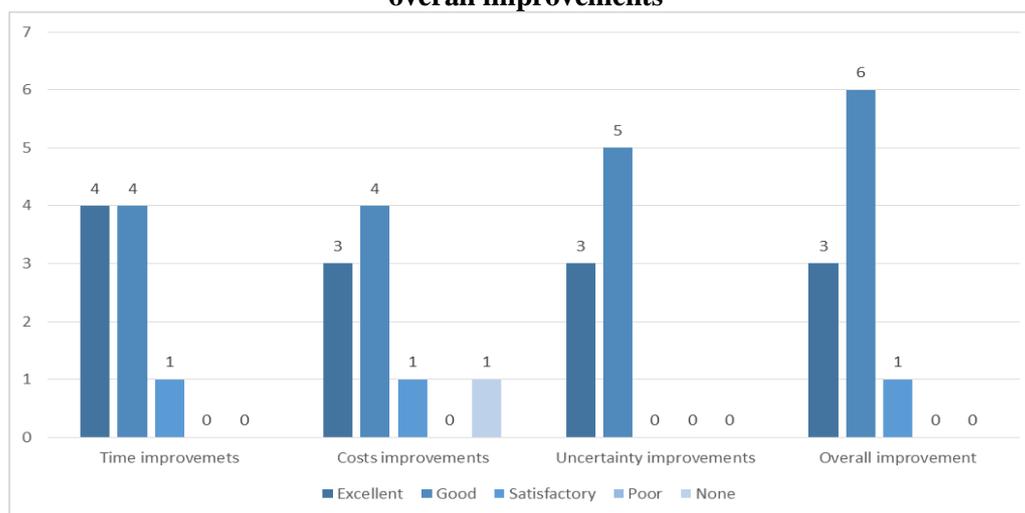
- APEC Customs Transit Guidelines endorsed by Ministers in 2014
- Compendium of Best Practices and Benefits of National Logistics Associations (NLAs) in Selected APEC Economies
- APEC Customs 3M Strategies Framework
- Simplification and Harmonization of Customs Procedures on the Basis of Revised Kyoto Convention.

These projects aimed to formulate guidelines for APEC customs transit with the goal of enhancing harmonization among APEC customs administrations resulting in effective implementation and evaluation. Other projects provided strategic and significant guidance for customs which produced positive effects including faster release of goods and lower trade costs for both customs administrations and the private sector.

4.5 EFFORTS BY INDIVIDUAL ECONOMIES

In all four aspects (Time, Cost, Uncertainty, and Overall Improvements), most economies rated themselves as ‘Good’. There is not much variation in responses across the four aspects, although one economy noted that they had no cost improvements.

Figure 4.6 Self-assessment survey: Effectiveness of projects on time, cost, uncertainty and overall improvements



Some examples by economies and sub-fora include:

- **Brunei Darussalam** improved its ranking in the World Bank’s Ease of Doing Business Index, due largely to reforms undertaken on starting a business and paying taxes.
- **China** implemented projects to improve supply-chain performance of environmentally friendly projects. As a result of this initiative, SAIC General Motors Corporation

Limited worked with environmentally friendly suppliers and reduced cost by RMB 570,000. Direct economic benefits from green supply chain management totalled RMB 380 million.

- **Japan** was one of the coordinating economies of the single window system, and held two workshops to enhance single window systems development and international interoperability.
- **Korea's** Customs Service introduced the FTA-PASS System in 2012, which resulted in the issuance of certificates of origin evidential document increasing from 4,466 cases in 2012 to 37,328 cases in 2015.
- **Chinese Taipei** sealed 284,262 containers by passive e-seals between January 2011 and December 2015. This helped carriers save about USD 5,250,000 in operational costs and 490,000 hours of waiting time. The free trade zones at Chinese Taipei's port also helped to eliminate the barriers to the flow of goods, capital and people in international trade.

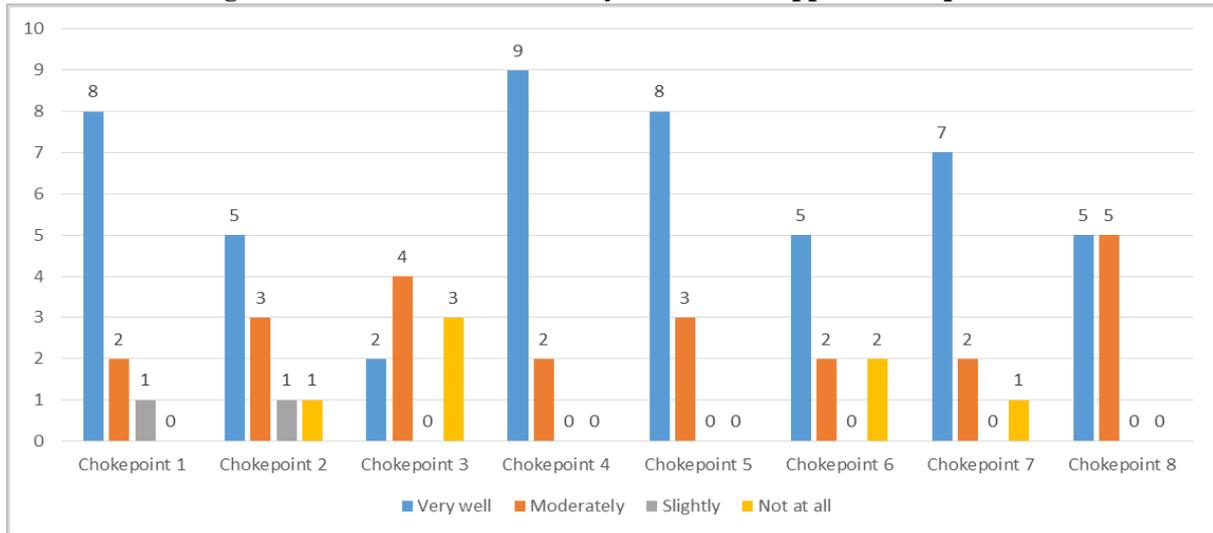
4.6 TANGIBLE IMPACTS FROM SCFAP-RELATED ACTIVITIES

The most reported tangible aspect was 'reducing the knowledge gap'. Examples given included providing an expanded information base for stakeholders to tap on. Also noted were efforts to improve awareness of certain causes such as green supply chains, and encourage information exchange. A significant number of economies also reported that their projects 'improved engagement with key stakeholders', and 'provided useful policy recommendations and best practices'.

A number of organizations were listed as having improved their engagement. They included ministries, labour unions, the academic community, the private sector and international organizations. One economy noted that more engagement could be done, for instance with a larger group of logistics services providers. The AEO programme and single window systems were notable examples of policy recommendations and best practices achieved by SCFAP-related projects.

4.7 SUPPORTING THE EIGHT CHOKEPOINTS

Twelve economies and sub-fora provided responses to the question on the level of support for the eight chokepoints, with a few incomplete answers.

Figure 4.7 Self-assessment survey: Efforts to support chokepoints

Chokepoints 4 (clearance) followed by 5 (documentation) and 1 (transparency) saw the highest levels of involvement (marked as ‘Very Well’) from the economies and sub-fora.

The chokepoints had an average of nine economies or sub-fora working on it (those marked ‘Very Well’ and ‘Moderate’), with a minimum of six (chokepoint 3) and a maximum of 11 (chokepoints 4 and 5). Chokepoint 3 (logistics) also had the most number of economies indicating that they were not involved at all.

4.8 LESSONS LEARNED

Responses were split along three main themes: (i) collaborations; (ii) gathering data; and (iii) building capacity and streamlining processes.

4.8.1 Collaboration

- Collaborations between government agencies as well as between the public and private sector were mentioned by various economies.
- **Chile** emphasized incorporating other governmental agencies into AEO programmes. Likewise, **China** also highlighted the importance of cooperation between government agencies and other stakeholders. **The Philippines** specifically mentioned coordination between customs agencies.
- **Korea** encouraged SMEs to participate in programmes like FTA-PASS, which improves supply-chain performance.
- PPPs in implementing single window systems like TradeNet were highlighted by **Singapore**.
- **China** brought up the importance of paying attention to regional and international issues, and their impact on supply-chain connectivity.

4.8.2 Gathering Quantitative Data

- **Australia** suggested improving the evidence-based rigour of infrastructure investment priorities (e.g. Infrastructure Australia audit). They also suggested data sharing and harmonizing procedures across stakeholders.
- **Japan** found collecting Time Release Survey results useful to quantitatively evaluate progress in supply-chain performance. Similarly, **China** mentioned its Asia-Pacific Model E-port Network (APMEN) project which gathered quantitative data through questionnaires to understand the needs of APMEN members.

4.8.3 Building Capacity and Streamlining Processes

- **The Philippines** underscored the importance of developing infrastructure and logistical services.
- **Chinese Taipei** suggested using ICT to accelerate customs clearance, such as their RFID e-seal technology to track shipping containers effectively.
- **Thailand's** customs department implemented the Advance Rulings via Advance Tariff Ruling and Advance Valuation Ruling to reduce uncertainty in the import of goods.
- **Australia** sought to first maximize operational efficiencies before investment in new/additional infrastructure is considered, such as the National Information and Communications Technology of Australia (NICTA) study on the efficiency of rail connections into ports.

4.9 KEY CHALLENGES AND OPPORTUNITIES

Member economies and sub-fora were asked to highlight key challenges and opportunities for each of the three target improvements: (i) time; (ii) cost; and (iii) uncertainty.

Specific challenges such as infrastructure or coordination, as well as opportunities such as collaboration and information sharing are repeated across the three areas, and may be worth focusing on in future projects and initiatives.

In improving time performance, transportation infrastructure and traffic congestion seem to be the key challenge (Table 4.1); it is also highlighted in the diagnostic report on chokepoint 2. It seems worthwhile to pursue the concept of 'informed infrastructure' that maximizes the return to infrastructure investment particularly for certain value chains. Opportunities lie with harmonizing standards and improving transparency and these seem to be still worth pursuing.

For challenges related to cost, high logistics costs were frequently cited (Table 4.2). This could come from low efficiency and quality of transportation infrastructure, which hinders the development of domestic value chains. Rising wages were also often mentioned as the reason for rising logistics costs as labour typically accounts for 20 percent of supply-chain expenses.²⁰

Lastly, security issues in maritime trade route is mentioned as one of the challenges in improving supply chain predictability (Table 4.3). This could point to the need to strengthen supply-chain resiliency across APEC economies. On opportunities, commodity-specific

²⁰ P. Burnson, 'Higher minimum wages will have impact on supply chain management', *Supply Chain Management Review*, 21 March 2016.

studies across national boundaries to target major chokepoints and delays could be a useful future initiative.

Table 4.1 Self-assessment survey: Challenges and opportunities related to time

Challenges	Opportunities
<ul style="list-style-type: none"> • Infrastructure and transport problems <ul style="list-style-type: none"> ○ traffic congestion ○ transport and infrastructure problems 	<ul style="list-style-type: none"> • Collaboration <ul style="list-style-type: none"> ○ collaboration between economies in the form of workshops and forums ○ sharing know-how ○ flexible and voluntary participation to encourage diversity in projects
<ul style="list-style-type: none"> • Bureaucratic coordination <ul style="list-style-type: none"> ○ coordination between government agencies ○ slow response times by trade partners 	<ul style="list-style-type: none"> • Harmonization <ul style="list-style-type: none"> ○ having common standards and measurements ○ implementation of good regulatory practice ○ improving transparency through harmonizing standards ○ building on the WCO's approach on Coordinated Border Management
<ul style="list-style-type: none"> • Changing consumer demand <ul style="list-style-type: none"> ○ changing consumer expectations and the resulting problems predicting consumer demand pattern 	<ul style="list-style-type: none"> • ICT and e-commerce <ul style="list-style-type: none"> ○ automation and capitalizing on the rise in cross-border e-commerce

Table 4.2 Self-assessment survey: Challenges and opportunities related to cost

Challenges	Opportunities
<ul style="list-style-type: none"> • Logistics costs <ul style="list-style-type: none"> ○ infrastructure, transport and logistics costs ○ rising wage costs 	<ul style="list-style-type: none"> • Information sharing <ul style="list-style-type: none"> ○ sharing of technological innovations and developing know-how
<ul style="list-style-type: none"> • Lack of standardization/quantifiable data <ul style="list-style-type: none"> ○ lack of standardization ○ the need for measurable outputs 	<ul style="list-style-type: none"> • Standardization, developing sound and transparent regulatory practices <ul style="list-style-type: none"> ○ developing good regulatory practices. ○ transparency and standardization of measurement tools
<ul style="list-style-type: none"> • Others <ul style="list-style-type: none"> ○ low levels of coordination between stakeholders ○ lack of funding for projects 	<ul style="list-style-type: none"> • Investing in infrastructure <ul style="list-style-type: none"> ○ developing automation and developing port and multimodal infrastructure

Table 4.3 Self-assessment survey: Challenges and opportunities related to uncertainty

Challenges	Opportunities
<ul style="list-style-type: none"> • Lack of information <ul style="list-style-type: none"> ○ the lack of data sharing and transparency ○ problems with access to measurable data 	<ul style="list-style-type: none"> • Information sharing and transparency <ul style="list-style-type: none"> ○ multilingual websites to promote information exchange within economies ○ increasing transparency by announcing changes in rules and regulations in advance ○ disclosing information on the status of the cargo at customs
<ul style="list-style-type: none"> • Institutional problems <ul style="list-style-type: none"> ○ security problems along maritime routes ○ customs clearance ○ problems with coordinating APEC-wide facilitative systems 	<ul style="list-style-type: none"> • Coordination <ul style="list-style-type: none"> ○ coordination between members and having good regulatory practices in place
<ul style="list-style-type: none"> • Consistency <ul style="list-style-type: none"> ○ sudden changes in requirements which have not been made public ○ inconsistent institutions 	<ul style="list-style-type: none"> • Others <ul style="list-style-type: none"> ○ simplifying procedures ○ commodity-specific studies across national boundaries to target major chokepoints and delays ○ aiding innovation and identifying new markets

4.10 SECOND PHASE OF THE SCFAP

Respondents provided a range of suggestions of goals and initiatives for the next phase of the SCFAP. Many suggestions relate to supporting the implementation of the World Trade Organization (WTO) Trade Facilitation Agreement. The received responses are provided in Box 1.

Box 4.1 Self-assessment survey: Next goals or focus for SCFAP
Simplifying and improving customs and border procedures and processes
<ul style="list-style-type: none"> • Review the operation and implementation of the WTO Trade Facilitation Agreement and explore the possibility of implementing its non-binding or best-endeavour provisions. • Improve trade facilitation by adopting state-of-the-art IT technology and digital customs. • Support the implementation of the WTO Trade Facilitation Agreement through having an aspirational target to implement at least a certain percentage of the Agreement. • Enhance the interoperability of National Single Windows.
Focusing on (commodity-) specific bottlenecks
<ul style="list-style-type: none"> • Conduct commodity-specific studies from producer-to-consumer (across the boundaries of member economies) that identify where in the supply chain major delays occur. • Further prioritize the existing eight chokepoints.
Knowledge sharing and performance benchmarking
<ul style="list-style-type: none"> • Share data and leading practice methods for reducing time and cost, e.g. through continued governance reform and technological innovation. • Share best practices in adopting new technologies to improve connectivity efficiency. • Support a performance benchmarking initiative, where APEC partners collect and share data and move toward harmonizing measures of productivity and efficiency. • Identify shared priorities in supply-chain connectivity across the APEC partners.
Solving transportation issues
<ul style="list-style-type: none"> • Tackle issues of congestion and its consequences for future trade growth.

<ul style="list-style-type: none"> • Fund future regional infrastructure: sources and priorities, investment models. • Share best practices for enhancing the capabilities of multimodal transportation.
Conducting capacity-building and cooperation initiatives
<ul style="list-style-type: none"> • Conduct more tailored capacity building. • Strengthen the network of ports within APEC through APMEN. • Strengthen the collaboration mechanism for the green supply chain. • Address issues applicable to micro, small and medium enterprises (MSMEs).
Strengthening supply chain security
<ul style="list-style-type: none"> • Improve customs control. • Strengthen security and social protection. • Promote better risk management. • Raise the profile of maritime trade route security within APEC fora.

5. CONCLUSION AND RECOMMENDATIONS

Several conclusions can be drawn from this assessment exercise, particularly on the way forward and the next phase of the SCFAP.

5.1 EXTERNAL INDICATORS

Based on the data from external indicators, the progress on APEC's efforts to achieve the SCFAP goals seems rather mixed – depending on the source of data. The overall LPI score shows a small improvement, still far from the 10 percent target. In terms of time, DB scores show very strong progress for both imports and exports, exceeding the pro-rata target, with the time taken to complete trade transactions faster by 10 percent for imports and 12 percent for exports.²¹ DB cost figures (adjusted for inflation) for imports and exports also show good progress, achieving the pro-rata target in 2014. It should be noted that nominal costs still indicate an increase of 7 percent for imports and 2 percent for exports.

The 2016 LPI report shows that traders experienced significantly longer lead time to import and export in port and airport supply chains. While this finding should be interpreted carefully, it could signal a need for stronger policy direction in this area.

There is a high correlation between distance and port/airport lead time: 50 percent for exports and 63 percent for imports. This could mean that, besides logistics and infrastructure, economies aiming to improve global connectivity would need to also resolve geographic hurdles and increase the efficiency of border processes. According to the 2016 LPI report, while export supply chains typically have a shorter lead time due to a lower procedural burden compared to import supply chains, it still took twice as long in low-income economies relative to high-income economies.²²

On costs, DB indicators adjusted for inflation have shown good progress. Nevertheless, increase in wages may put some pressure on logistics costs, particularly in advanced economies with sophisticated logistics systems and infrastructure. The 2016 LPI report also highlights that informal payments remain an issue for economies with lower logistics performance.

According to estimates from the APEC Policy Support Unit, APEC economies reduced bilateral trade costs with their 10 largest trading partners by 6 to 12 percent between 2010 and 2014.²³ If a simple average is used, ad-valorem trade costs have fallen from 96.4 percent of the value of goods traded in 2010 to 90.7 percent in 2014. If a trade-weighted average is used, trade costs have fallen from 74.4 percent in 2010 to 65.8 percent in 2014.

On the uncertainty issue, the worsening of LPI Shipments Quality indicator should also be tackled more rigorously in the next phase of the SCFAP. Improving the quality of domestic logistics services is particularly significant. A more positive result is seen for the LPI indicator on Physical Inspection which has declined by 42 percent, representing a marked improvement

²¹ These DB indicators measure time and cost spent on four predefined stages: document preparation; customs clearance and inspections; inland transport and handling; and port and terminal handling (pages 135–7 of DB 2015).

²² See page 20 of the LPI 2016 report.

²³ APEC PSU, *APEC Regional Trends Analysis: Reducing Trade Costs in the Asia-Pacific* (Singapore: APEC Secretariat, May 2016).

in border clearance. The 2016 LPI report also highlights the contrast between top and low logistics performers in three areas that are not directly related to quality of logistics services: informal (corrupt) payments, compulsory warehousing, and pre-shipment inspection.²⁴ Delays and uncertainty are particularly damaging for economies with low LPI scores; and they occur more frequently in those economies.

5.2 INTERNAL INDICATORS

Based on the 2014 CTI report to Ministers, most SCFAP activities have been completed (93.6%). Only a very few are still ongoing or with no information. In total, 102 activities were completed under the eight chokepoints between 2010 and 2014.

From the internal indicators of each chokepoint, several initiatives could be considered for the next phase of the SCFAP:

Chokepoint 1 (transparency):

- Establish effective systems for informing appropriate bodies when preparing a new regulatory measure.
- Effectively integrate trade, competition, and market-openness considerations into the regulatory development processes.

Chokepoint 2 (infrastructure)

- Apply the concept of ‘informed infrastructure’ which describes planned and coordinated development of facilities such as roads, railways, terminals and ports including the systems that support their effective utilization (end-to-end approach to infrastructure planning).

Chokepoint 3 (logistics capacity)

- Formulate capacity-building activities to meet SMEs’ unique circumstances.

Chokepoint 4 (clearance)

- Continue to strengthen the electronic and interoperability of the single window system.
- Expand the application of time release surveys.
- Strengthen the e-payment system.

Chokepoint 5 (documentation)

- Maintain an electronic system for clearing goods at the border that can adapt to future technologies for online/electronic forms.
- Maintain an open and transparent dispute settlement mechanism with published timelines and procedures for arbitrating disputes between importers and customs agencies.

²⁴ See page 22 of the LPI 2016 report.

Checkpoint 6 (multimodal connectivity)

- Consider ancillary logistics services to be a priority component of transportation and multimodal infrastructure investment planning.
- Provide specific workforce development programmes for transport and logistics skills training.

Checkpoint 7 (regulations and standards)

- Identify best practices in cybersecurity initiatives within APEC to establish a secure, sustainable online environment.
- Adopt an electronic information exchange framework.

Checkpoint 8 (transit)

- Tackle impediments faced by businesses in cross-border customs transit.

5.3 SELF-ASSESSMENT SURVEY

According to the self-assessment survey, over a quarter of the projects address checkpoint 4 (clearance), much more than any other checkpoint. Checkpoints 7 (regulations and standards), 8 (transit) and 2 (infrastructure) were addressed the least.

Additionally, checkpoints 4 (clearance) followed by 5 (documentation) and 1 (transparency) saw the highest levels of involvement (marked as 'Very Well') from the economies and sub-fora.

The preponderance of projects related to checkpoint 4 (and checkpoint 5) shows that issues of border clearance (and documentation) have been high on the agenda of individual APEC economies. Indeed, APEC has been at the forefront in terms trade facilitation efforts for cross-border flows of goods.

The low level of engagement on infrastructure, standards, and transit checkpoints could mean that some of these issues have been handled more actively in other APEC fora, such as the Transportation Working Group and the Finance Ministers' Process. Further support could be necessary to encourage more initiatives related to the topics.

The self-assessment survey responses suggest the following initiatives or thematic areas for the next phase of the SCFAP:

- Improving trade facilitation by adopting state-of-the-art IT and digital customs.
- Enhancing the interoperability of National Single Windows.
- Sharing best practices on new technologies to improve connectivity efficiency.
- Tackling issues of congestion and its consequences for future trade growth.
- Funding future regional infrastructure: sources and priorities, investment models.
- Sharing best practices for enhancing the capabilities of multimodal transportation.
- Strengthening the network of ports within APEC.
- Strengthening the collaboration mechanism for the green supply chain.
- Strengthening supply-chain security.
- Raising the profile of maritime trade route security within APEC fora.

5.4 LINKING THE SCFAP WITH THE WTO TRADE FACILITATION AGREEMENT

The WTO Trade Facilitation Agreement concluded in 2013 contains provisions for expediting the movement, release and clearance of good across borders. The agreement covers a range of issues: transparency and access to information; stakeholders' consultation; advance ruling; disciplines on fees and charges; pre-arrival processing; electronic payment; risk management; documentation; pre-shipment inspection; and transit.

The SCFAP could be seen to be a continuation from the previous APEC Trade Facilitation Action Plan. Both initiatives focus on trade facilitation efforts involving: (i) behind-the-border issues such as regulatory frameworks and standards; (ii) at-the-border issues such as single window and border management; and (iii) across-the-border issues including e-commerce and logistics.

APEC defines trade facilitation in terms of reducing trade transaction costs, as stated in its Trade Facilitation Action Plan initiative:

Trade Facilitation refers to the simplification and rationalization of customs and other administrative procedures that hinder, delay or increase the cost of moving goods across international borders. Or to put it another way, cutting red tape at the border for importers and exporters so that goods are delivered in the most efficient and cost effective manner.

The SCFAP, while covering border and customs issues, has a broader framework as it also touches on issues related to logistics and transportation infrastructure. Some chokepoints of the SCFAP (in particular chokepoints 4, 5 and 8) have a focus similar to the WTO Trade Facilitation Agreement on expediting trade process and transactions at the border.

5.5 SECOND PHASE OF THE SCFAP

Based on the results of the diagnostic reports, self-assessment survey, and the analysis of external indicators, the following could be considered areas that APEC would need to focus on:

- **Simplifying and improving customs and border procedures and processes:** This includes issues such as: (i) digital customs; (ii) interoperability of National Single Windows; and (iii) expansion of the Mutual Recognition Arrangement (MRA) of Authorized Economic Operators between APEC economies.
- **Improving quality and access to transportation infrastructure and services:** This captures issues such as: (i) improving connectivity efficiency using technology; (ii) addressing congestion; (iii) funding future regional infrastructure; and (iv) enhancing multimodal transportation.
- **Reliable, secure and efficient logistics services:** This captures issues such as: (i) high logistics costs; (ii) strengthening the ports network; (iii) the green supply chain; (iv) improving the capacity of SME logistics providers; and (iv) strengthening supply-chain security.
- **Stronger regulatory cooperation and harmonization:** This could include issues such as: (i) better stakeholders' consultation; and (ii) effective integration of trade, competition, and market-openness considerations into the regulatory development processes.

- **Improved policy and regulatory infrastructure for e-commerce:** This could include issues such as: (i) cybersecurity initiatives to establish a secure, sustainable online environment; and (ii) adoption of an electronic information exchange framework.

To conclude, supply-chain connectivity has been a core area for APEC in strengthening and supporting regional integration. Some progress has been made in reducing time and cost for traders. Nevertheless, gaps remain and these should be addressed in the next phase of the SCFAP. The second phase should also address emerging areas in the global supply chain such as e-commerce, digital customs and cybersecurity.

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APPENDIX: DEFINITIONS OF EXTERNAL INDICATORS

Indicators	Description
ETI Overall Index	Enabling Trade Index. The ETI measures the extent to which individual economies have developed institutions, policies and services facilitating the free flow of goods over borders and to destination. It is composed of four sub-indexes and 9 pillars.
LPI Overall Index	Logistics Performance Index. The LPI summarizes the performance of countries in six areas that capture the most important aspects of the current logistics environment: efficiency of the customs clearance process; quality of trade and transport-related infrastructure; ease of arranging competitively priced shipments; competence and quality of logistics services; ability to track and trace consignments; frequency with which shipments reach the consignee within the scheduled or expected time. The LPI survey is conducted every two years to improve the reliability of the indicators and to build a dataset comparable across countries and over time.
ETI Transport Infrastructure Pillar	5th pillar: Availability and quality of transport infrastructure. This pillar measures the state of transport infrastructure across all modes of transport in each economy, as demonstrated by the density of airports, the percentage of paved roads, as well as the extent of transshipment connections available to shippers from each country. Also captured is the quality of all types of transport infrastructure, including air, rail, roads and ports.
ETI Transport Services Pillar	6th pillar: Availability and quality of transport services. This pillar complements the assessment of infrastructure by taking into account the quality of services available for shipment, including the quantity of services provided by liner companies, the ability to track and trace international shipments, the timeliness of shipments in reaching destination, general postal efficiency, and the overall competence of the local logistics industry (e.g. transport operators, customs brokers). This pillar also takes into account the degree of openness of the transport-related sectors as measured by countries' commitments made under the General Agreement on Trade in Services (GATS).
ETI ICT Pillar	7th pillar: Availability and use of ICTs. This pillar includes the penetration rates of ICT tools such as mobile phones and the internet in each country. It also includes measures of the perceived use of internet by business for buying and selling goods and an index of the availability of government online services.
LPI Infrastructure Index	Infrastructure. This is based on responses to the question: 'Evaluate the quality of trade- and transport-related infrastructure (e.g. ports, railroads, roads, information technology) (very low – very high)'.
LPI Logistics Competence Index	Logistics competence. This is based on responses to the question: 'Evaluate the overall level of competence and quality of logistics services (e.g. transport operators, customs brokers) (very low – very high)'.
LPI % Shipments Meeting Quality Criteria	% of shipments meeting quality criteria. This is based on the question: 'As a logistics provider, do you maintain indicators of services level to client? If yes, what is the percentage of imports to your country of work meeting your quality criteria for delivery to the consignee?'
ETI Customs Administration Pillar	2nd pillar: Efficiency of customs administration. This pillar measures the efficiency of customs procedures as perceived by the private sector, as well as the extent of services provided by customs authorities and related agencies.

Indicators	Description
ETI Import-Export Procedures Pillar	3rd pillar: Efficiency of import-export procedures. This pillar extends beyond customs administration and assesses the effectiveness and efficiency of clearance processes by customs as well as related border control agencies, the number of days and documents required to import and export goods, and the total official cost associated with importing as well as exporting, excluding tariffs and trade taxes.
LPI Customs Index	Customs. This is based on the responses to the question: ‘Evaluate the efficiency of the clearance process (i.e. speed, simplicity and predictability of formalities) by border control agencies, including Customs (very low – very high)’.
LPI Lead Time to Import	Lead time import for port/airport, median case (days). This is based on responses to the question: ‘When importing a full load to your country of work, please estimate the following time parameters: typical distance, best case (up to 10% of the shipments are on-carried within), and median case (50% of the shipments are on-carried within)’. From Port/Airport (import on-carriage: DES (Delivered Ex Quay) to DDP (Delivered Duty Unpaid))
LPI Lead Time to Export	Lead time export for port/airport, median case (days). This is based on responses to the question: ‘When exporting a full load from your country of work, please estimate the following time parameters: typical distance, best case (up to 10% of the shipments are pre-carried within), and median case (50% of the shipments are pre-carried within)’. To Port/Airport (export pre-carriage: EXW (Ex Works) to FOB (Free on Board))
LPI Documents to Import	Number of documents. This is based on responses to the question: ‘How many documents do you typically have to submit to border-related government agencies involved in the clearance process, including Customs, in your country of work?’
LPI Documents to Export	Number of documents. This is based on responses to the question: ‘How many documents do you typically have to submit to border-related government agencies involved in the clearance process, including Customs, in your country of work?’
LPI Cost to Import	Typical charge for a 40-foot import container or a semi-trailer (USD). This is based on responses to the question: ‘When importing a full load to your country of work, please estimate the following cost parameter: typical charge for a 40’ dry container or a semi-trailer’. From Port/Airport (total freight including agent fees, port, airport and other charges) and by Land (total freight including agent fees and other charges).
LPI Cost to Export	Typical charge for a 40-foot export container or a semi-trailer (USD). This is based on responses to the question: ‘When exporting a full load from your country of work, please estimate the following cost parameter: typical charge for a 40’ dry container or a semi-trailer’. To Port/Airport (total freight including agent fees, port, airport and other charges) and by Land (total freight including agent fees and other charges).
LPI % Physical Inspection	Physical inspection (%). This is based on responses to the question: ‘On average, what percentage of your import shipments is physically inspected in your country of work?’

Indicators	Description
DB Time to Import	<p>Trading across borders – time to import (days). The time for importing is recorded in calendar days. The time calculation for a procedure starts from the moment it is initiated and runs until it is completed. If a procedure can be accelerated for an additional cost and is available to all trading companies, the fastest legal procedure is chosen. Fast-track procedures applying to firms located in an export processing zone are not taken into account because they are not available to all trading companies. Ocean transport time is not included. It is assumed that the importer does not waste time and commits to completing each remaining procedure without delay. Procedures that can be completed in parallel are measured as simultaneous. The waiting time between procedures – for example, during loading of the cargo – is included in the measure.</p>
DB Time to Export	<p>Trading across borders – time to export (days). The time for exporting is recorded in calendar days. The time calculation for a procedure starts from the moment it is initiated and runs until it is completed. If a procedure can be accelerated for an additional cost and is available to all trading companies, the fastest legal procedure is chosen. Fast-track procedures applying to firms located in an export processing zone are not taken into account because they are not available to all trading companies. Ocean transport time is not included. It is assumed that the exporter does not waste time and commits to completing each remaining procedure without delay. Procedures that can be completed in parallel are measured as simultaneous. The waiting time between procedures – for example, during loading of the cargo – is included in the measure.</p>
DB Documents to Import	<p>Trading across borders – documents to import (number). All documents required per shipment to import the goods are recorded. It is assumed that the contract has already been agreed upon and signed by both parties. Documents required for clearance by government ministries, customs authorities, port and container terminal authorities, health and technical control agencies, and banks are taken into account. Since payment is by letter of credit, all documents required by banks for the issuance or securing of a letter of credit are also taken into account. Documents that are renewed annually and that do not require renewal per shipment (for example, an annual tax clearance certificate) are not included.</p>
DB Documents to Export	<p>Trading across borders – documents to export (number). All documents required per shipment to export the goods are recorded. It is assumed that the contract has already been agreed upon and signed by both parties. Documents required for clearance by government ministries, customs authorities, port and container terminal authorities, health and technical control agencies, and banks are taken into account. Since payment is by letter of credit, all documents required by banks for the issuance or securing of a letter of credit are also taken into account. Documents that are renewed annually and that do not require renewal per shipment (for example, an annual tax clearance certificate) are not included.</p>
DB Cost to Import	<p>Trading across borders – cost to import (USD per container). Cost measures the fees levied on a 20-foot container in US dollars. All the fees associated with completing the procedures to import the goods are included. These include costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport. The cost does not include customs tariffs and duties or costs related to ocean transport. Only official costs are recorded.</p>

Indicators	Description
DB Cost to Export	Trading across borders – cost to export (USD per container). Cost measures the fees levied on a 20-foot container in US dollars. All the fees associated with completing the procedures to export the goods are included. These include costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport. The cost does not include customs tariffs and duties or costs related to ocean transport. Only official costs are recorded.
ETI Transparency of Border Administration Pillar	4th pillar: Transparency of border administration. This pillar assesses the pervasiveness of undocumented extra payments or bribes connected with imports and exports, as well as overall perceived degree of corruption in each country.
ETI Business Environment Sub-Index	Sub-index D: Business environment. This sub-index looks at the quality of governance as well as at the overarching regulatory and security environment impacting the business of importers and exporters active in the country. It is composed of two pillars: regulatory environment and physical security