GOODS MOVEMENT BORDER BORDER GROSSING STUDY-DHASE II





Executive Summary

Introduction

The Southern California Association of Governments (SCAG) conducted the Goods Movement Border-Crossing Study and Analysis, Phase II to assess the mobility of commerce at the California – Baja California border and develop freight planning strategies that address long term trade and transportation infrastructure needs in the border region.

Therefore, the primary purpose of the Goods Movement Border Crossing Study - Phase II effort was to gather and synthetize information on goods movement across the U.S.-Mexico border moving through the San Diego and Imperial Counties international Land Ports of Entry (LPOEs) and to develop future projections of freight flows in order to assist SCAG and regional stakeholders in their assessment of future infrastructure needs and general planning efforts.

Overview of Study Tasks

The study was conducted as a series of tasks that, together, provided a better understanding of the characteristics of the movement of goods across the California – Baja California binational region, forecasted the future volumes of these flows and their impact on the SCAG transportation network and derived recommendations for improving the efficiency with which these flows move. The study was centered on a description of the current situation of border-crossing goods movement in the area, an identification of the emerging trends in goods movement that would affect the future of the movement of these goods, the forecast of border-crossing goods movement under alternative scenarios, the analysis of how these future flows affect highway bottlenecks in the region and the identification of economic development opportunities related to the movement of these goods. A summary of the work performed under each one of these tasks is provided below.

Current Situation

The study began by developing an understanding of the current border-crossing flows of goods by collecting data on the origins and destinations (O-Ds) of goods moving across the California – Baja California border, and the cargo types transported. The targets for this data collection effort¹ were companies located on the Mexican side of the border (both in the greater Tijuana-Rosarito-Ensenada area and in the greater Mexicali area²) from a set of representative clusters³ that generate cargo to be transported to the U.S. side of the border.

Based on data reported by the companies at an aggregate level, the study found that these companies use inputs and/or raw materials coming primarily from the U.S. (56% of their inbound shipments⁴) in addition to a significant amount of Mexican materials in their production (25% of their inbound shipments). The destinations of the shipments sent by these cargo-generating companies are also primarily located in the

¹ See Chapter 2 (Data Collection Plan & Survey Instruments) of this document for more details on this topic.

² Since the focus of this study is on border-crossing movement of goods, the targets were companies located in Mexico that receive and/or ship goods to the U.S.

³ The clusters analyzed in this study are defined in Chapter 1 (Evaluation of Existing Data Sources) of this document.

⁴ Inbound shipments are those that originate elsewhere and have the interviewed company as their destination.

U.S. (72% of their outbound shipments⁵) with fewer shipments sent to Mexico (11% of their outbound shipments) compared to inbound shipments, suggesting that these companies are primarily focused on serving the U.S. consumer market.⁶ Furthermore, cargo generating companies stated the preferred transportation mode for cross-border movement of goods in the region is truck.⁷

An analysis of manifest-level data collected from cargo generators in this binational region shows that O-Ds of border-crossing goods movement in the region extend not only to geographies like Northern California and the Pacific Northwest, but also to states in the Central U.S. (including Nebraska, Texas, Illinois, Indiana, Wisconsin), states in the Eastern U.S. (including Georgia, Alabama, North Carolina, South Carolina, Pennsylvania) and Canada. Figure ES-1 and Figure ES-2 Illustrate the different origins (for southbound trips) and destinations (for northbound trips) identified by the cargo generating companies. The flows are broken down by border area in Mexico where the trips originate or terminate to provide a sense of the markets served by each border region.⁸



Figure ES-1. U.S. Destination of Northbound Shipments Originating in Tijuana and Mexicali

Source: HDR Analysis of Truck O-D Survey

⁵ Outbound shipments are those that originate in the cargo generating company being interviewed and have destination elsewhere.

⁶ Other origins of inbound shipments include Asia (14%), Europe (2%) and other/not-reported (3%). Similarly, other destinations of outbound shipments include Asia (7%), Europe (3%), Canada (1%), Latin America excluding Mexico (1%) and other/not-reported (5%).

⁷ Trucks alone are estimated to transport approximately 85% of the goods moved across the border in this region. However, interviews were also conducted with rail operators to understand O-D patters and cargo moved by them.

⁸ A detailed analysis of the data collected is presented in Chapter 3 (Summary of Truck O-D Data) of this document.



Figure ES-2. U.S. Origins of Southbound Shipments Originating in Tijuana and Mexicali

Source: HDR Analysis of Truck O-D Survey

An assessment of current rail operations shows that the amount of goods moved across the border using this mode is very limited compared to the amount of goods moved by truck, with the majority of rail movement occurring in Imperial County. The study confirmed that the railroad network in the region is only used to move goods across the border between the State of Baja California in Mexico and cities in the U.S., since the railroad on the Mexican side has very limited connectivity with the rest of the Mexican railroad network.

During a previous border crossing study completed in 2012,⁹ drayage was found to be an important component of the supply chain for cross-border movements. The current study deepened the understanding of this activity by estimating an economic impact from truck drayage in the binational region of approximately \$510.5 million in output, including \$253.1 million in value added, and approximately 3,500 jobs.¹⁰ Additionally, information collected through interviews of drayage companies detected that some companies reported performing long-haul "drayage" trips, suggesting that companies engaged in drayage also offer long-haul transportation services.

Emerging Trends

As part of the study, the team conducted a series of interviews with staff and representatives from government agencies, associations, chambers of commerce and private companies to identify emerging

⁹ SCAG Goods Movement and Border Crossing Study and Analysis,

http://www.freightworks.org/DocumentLibrary/Goods-Movement-Border-Crossing-Study-and-Analysis Final 6-06-12(1).pdf

¹⁰ Details of the Economic Impact Analysis are provided in Chapter 4 (Summary of Drayage Data and Economic Impacts) of this report.

and future trends in border-crossing goods movement in the region. The main trends identified through these surveys were:

- Growth in the production of high-quality manufacturing products in the region is expected to be strong in the future
- Important components for some industries (i.e., electronics) currently come from Asia and this trend is not expected to change radically in the mid- to long-term
- Trucking will continue to be the preferred transportation mode for border-crossing movements of goods in the region
- Third-party logistics companies (3PLs) have left the Otay Mesa area in recent years due to lower rent and better access to global networks in other regions (not necessarily located along the U.S. – Mexico border)

In addition, the interviewees identified a series of "events" that were used to define different scenarios for the future movement of border-crossing goods in the region that were developed as part of this study. These events were categorized into four groups:

- Infrastructure, related to the physical capacity of the movement of goods in, out and within the binational region;
- Border-crossing operations, related to the processes to move goods across the border;
- Regional production capabilities, linked to the ability of the binational region to produce intermediate and final goods; and,
- Policy, linked to actions by the local governments on both sides of the border to impact the competitiveness of the region with respect to the movement of border-crossing goods.

These events were used to develop the "baseline," "high-volume" and "low-volume" scenarios in terms of forecasted amount of border-crossing goods to be moved, mode of transportation and O-Ds.¹¹

Forecasts of Goods Movement

The team developed three forecasts for border-crossing goods movements in the region: baseline, highvolume and low-volume. The forecasts were developed using primarily macro-economic conditions affecting flows of goods across the border that were later adjusted to capture the impact of the events identified as part of the emerging trends stage.

Each scenario's forecast was broken down by transportation mode (truck, rail) and type of generator/attractor (ports, non-ports/inland) and disaggregated into 35 O-D zones (34 within the SCAG and SANDAG region and 1 external zone to capture movement beyond the other zones). A map with the 34 zones in which the SCAG and SANDAG regions are divided is presented in Figure ES-3.

BASELINE SCENARIO FORECAST

The baseline scenario forecast was defined as the forecast of border-crossing goods movement featuring the most-likely future macro-economic conditions and the most-likely occurrence of events as identified in the trends exercise. The baseline scenario features an annual growth rate of 2.9 percent for border-crossing goods moved by truck (in each direction, northbound and southbound) throughout the region between 2015 and 2040. This leads to almost 2.5 million truck crosses in each direction by 2040.

¹¹ A list of the identified "events" is provided in Chapter 5 (Freight Flow Projections in Baseline Scenario) of this document.



Figure ES-3. O-D Zones Used in Analysis of Border-Crossing Flows

Source: HDR

Figure ES-4. Forecasts of Northbound Truck Volumes in San Diego - Tijuana Border Region Under Different Scenarios



Source: HDR



Figure ES-5. Forecasts of Northbound Truck Volumes in Calexico - Mexicali Border Region Under Different Scenarios

Source: HDR

When these volumes are broken down by geographical area, truck volumes in the San Diego-Tijuana region are expected to grow an annual rate of 2.7 percent, reaching approximately 1.7 million trips in each direction in 2040 while truck flows in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 3.4 percent, reaching more than 760,000 trips in each direction in 2040. A graphical representation of the forecasted northbound truck volumes under each scenario and for each border-crossing region (i.e., San Diego - Tijuana and Calexico - Mexicali) developed as part of this study is presented in Figure ES-4 and Figure ES-5.

| | | | 2040 Low-Volume Scenario | | 2040 Baseline Scenario | | 2040 High-Volume Scenario | |
|--------------------------------|---------------------------------------|------------------|-----------------------------|------------------|---------------------------|------------------|------------------------------|--|
| Origin-Destination Pair | | Annual Trucks | Avg. Daily Trucks | Annual Trucks | Avg. Daily Trucks | Annual Trucks | Avg. Daily Trucks | |
| Mexicali | Imperial County (SCAG) | 353,002 | 1,412 | 572,944 | 2,292 | 886,954 | 3,548 | |
| | From/To/Thru Remaining SCAG Region | 363,733 | 1,455 | 525,442 | 2,102 | 749,065 | 2,996 | |
| | San Diego County | 25,006 | 100 | 33,904 | 136 | 45,567 | 182 | |
| | States East of California | 292,828 | 1,171 | 420,133 | 1,681 | 574,846 | 2,299 | |
| Tijuana | Imperial County (SCAG) | 12,487 | 50 | 14,556 | 58 | 18,725 | 75 | |
| | From/To/Thru Remaining SCAG Region | 950,850 | 3,803 | 1,170,466 | 4,682 | 1,572,474 | 6,290 | |
| | San Diego County | 1,082,173 | 4,329 | 1,421,812 | 5,687 | 2,036,397 | 8,146 | |
| | States East of California | 491,230 | 1,965 | 638,135 | 2,553 | 854,934 | 3,420 | |
| Total Cross Border Truck Trips | | 3,571,309 | 14,285 | 4,797,393 | 19,190 | 6,738,961 | 26,956 | |

| | Table 1, 2040 | Annual Cross | Border Truck | Flows by | Region and Scenario |
|--|---------------|--------------|--------------|----------|---------------------|
|--|---------------|--------------|--------------|----------|---------------------|

Source: HDR

When the aggregate truck flows (i.e., northbound plus southbound) for the year 2040 are allocated to the different O-Ds, the highest flows are between Tijuana and locations within San Diego County with more than 1.4 million annual truck trips. This represents 30% of all cross border truck traffic. The second highest truck flows are between Tijuana and the SCAG region north of San Diego and Imperial Counties with nearly 1.2 million trips. This represents approximately 24% of all cross border traffic. The third highest 2040 baseline volumes (638,000 annual) also cross over at Tijuana and travel from/to states east of California. This major O-D is followed closely by Mexicali from/to Imperial County traffic at 573,000 annual. The results of this allocation for the different scenarios studies are presented in Table 1.

Similarly, the baseline scenario features an annual growth rate of 2.2 percent for border-crossing goods moved by rail (in each direction, northbound and southbound) for the same period of analysis. This results in more than 19,000 railcars crossing in each direction in 2040. Rail volumes in the San Diego-Tijuana region are expected to grow at an annual rate of 2.0 percent, reaching more than 6,000 railcars by 2040 in the northbound direction while rail volumes in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 2.2 percent, reaching more than 13,000 railcars in 2040 in the northbound direction. A graphical representation of the forecasted northbound rail volumes under each scenario and for each border-crossing region (i.e., San Diego – Tijuana and Calexico – Mexicali) developed as part of this study is presented in Figure ES-6 and Figure ES-7.





Source: HDR



Figure ES-7. Forecasts of Northbound Rail Volumes in Calexico - Mexicali Border Region Under Different Scenarios

Source: HDR

HIGH-VOLUME SCENARIO FORECAST

The high-volume scenario forecast was defined as the forecast of border-crossing goods movement featuring optimistic future macro-economic conditions and the appearance of events that would increase the movement of goods across the border.¹² The high-volume scenario features an annual growth rate of 3.5 percent for border-crossing goods moved by truck (in each direction, northbound and southbound) throughout the region between 2015 and 2040. This means that more than 3.1 million trucks are anticipated to cross in each direction by 2040. When these volumes are broken down by geographical area, truck volumes in the San Diego-Tijuana region are expected to grow an annual rate of 3.2 percent, reaching more than 2.1 million crossings in 2040 in each direction, while truck flows in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 4.1 percent, reaching approximately 1 million trips in 2040 in each direction.

As in the baseline scenario, the highest aggregate truck forecast flows in 2040 for the high-volume scenario are between Tijuana and locations within San Diego County with just over 2.0 million trips, followed by flows between Tijuana and the remaining SCAG region (excluding Imperial County) with approximately 1.6 million trips. Traffic between Mexicali and Imperial County becomes the third highest O-D in this scenario reaching nearly 890,000 trips in 2040, slightly exceeding the flows between Tijuana and states east of California that feature 850,000 in that same year (see Table 1).

In addition, the high-volume scenario features an annual growth rate of 2.6 percent for border-crossing goods moved by rail (in each direction, northbound and southbound) for the 2015-2040 period of analysis. This results in approximately 22,000 railcars crossing in each direction in 2040. Rail volumes in the San Diego-Tijuana region are expected to grow at an annual rate of 2.4 percent, reaching approximately 7,000 railcars in the northbound direction in 2040, while rail volumes in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 2.7 percent, reaching approximately 15,000 railcars in the northbound direction in 2040.

¹² More details on the high-volume forecast can be found in Chapter 8 (Freight Flow Projections in Alternative Scenarios) of this document.

LOW-VOLUME SCENARIO FORECAST

Finally, the low-volume scenario forecast was defined as the forecast of border-crossing goods movement featuring pessimistic future macro-economic conditions and the appearance of events that would decrease the movement of goods across the border.¹³ The low-volume scenario features an annual growth rate of 2.5 percent for border-crossing goods moved by truck (in each direction, northbound and southbound) throughout the region between 2015 and 2040. This means that almost 2.0 million trucks are anticipated to cross in each direction by 2040. When these volumes are broken down by geographical area, truck volumes in the San Diego-Tijuana region are expected to grow an annual rate of 2.3 percent, reaching approximately 1.4 million border-crossing truck trips in each direction, while truck flows in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 2.8 percent, reaching approximately 600,000 truck trips in each direction.

In this scenario, the highest aggregate truck forecast flows in 2040 are between Tijuana and locations within San Diego County with just over 1.0 million trips, followed by flows between Tijuana and the remaining SCAG region (excluding Imperial County) with approximately 950,000 trips. The third highest 2040 low-volume flows cross over at Tijuana and travel from/to states east of California reaching approximately 490,000 truck trips in 2040. The fourth major O-D is Mexicali from/to the remaining SCAG region (excluding Imperial County) with approximately 360,000 truck trips in 2040.

The low-volume scenario features an annual growth rate of 1.8 percent for border-crossing goods moved by rail (in each direction, northbound and southbound) for the same period of analysis. This results in approximately 17,000 railcars crossing in each direction in 2040. Rail volumes in the San Diego-Tijuana region are expected to grow at an annual rate of 1.6 percent, reaching approximately 5,500 railcars in the northbound direction in 2040, while rail volumes in the Imperial County-Mexicali region are anticipated to grow at an annual rate of 1.8 percent, reaching a little over 11,500 railcars in the northbound direction in 2040.

Bottleneck Analysis

The bottleneck analysis conducted as part of this study identified highway corridors where the forecasted volumes of border-crossing goods moved by truck would hit heavy-duty truck "bottlenecks" as identified in the updated version of SCAG's 2013 Comprehensive Regional Goods Movement Plan and Implementation Strategy. An illustration of the bottlenecks found in this study using the baseline scenario forecasts can be found in Figure ES-8.¹⁴

Under the three scenarios forecasted, the SCAG bottlenecks on I-5 in Orange and Los Angeles Counties carry the most international trucks. This is to be expected given that outside of San Diego County, the greater Los Angeles Basin and the Tijuana POE O-Ds represent almost a quarter of all cross border truck traffic. Although the extent of the potential congestion impacts on the three Imperial County locations is unknown since they were not quantified in the 2013 study, all truck traffic was assumed to go through to all three locations and therefore become the most impacted bottlenecks in that county.

¹³ More details on the low-volume forecast can be found in Chapter 8 (Freight Flow Projections in Alternative Scenarios) of this document.

¹⁴ Similar illustrations for the alternative scenarios can be found in Chapter 9 (Bottleneck Analysis for Alternative Scenarios) of this document.





Source: SMG

Potential mitigation projects to address the bottlenecks affected by border-crossing goods movement include projects on I-5 in South LA County, I-15/I-215, SR-91, US 101/SR 23, I-405, I-710 at the crossing with SR-2, I-10 in SANBAG and I-605.¹⁵

Opportunities

Opportunities for economic development in the binational area through a literature review of future trends in the Mexican economy, a qualitative analysis of the interviews with agencies and border-crossing goods movement stakeholders, and the analysis of case studies of supply chains in the region.

The literature review on the Mexican economy found that: (i) economic growth in Mexico is expected to remain high in the near future; (ii) Mexico is ideally located to serve as a global manufacturing hub since it straddles major East-West trade lanes and has executed a large number of free trade agreements with developed economies; and, (iii) the industrial base of Baja California is very different than that of the rest of the country and is likely to remain so due to the large degree of integration with the Southern California economy.

The qualitative analysis of interviews and case studies increased awareness about opportunities related to attraction of maquiladora and supplier companies to the binational region from Asia (near-shoring), growth in LPOE capacity to meet future demand for truck crossings, expansion of port capacity on the Mexican

¹⁵ A detailed list of bottlenecks and mitigation projects can be found in Chapter 6 (Bottleneck Analysis for Baseline Scenario) and Chapter 9 (Bottleneck Analysis for Alternative Scenarios) of this document.

side of the border to help relieve congestion at Ports of Los Angeles and Long Beach, development of intermodal capacity in Tijuana to improve the access of automobiles produced in the region to their final destination, development of air cargo to link high-value goods produced in region with consumer markets and promotion of cold storage facilities in Imperial County to better handle agricultural goods crossing through the LPOEs in this county.

The combined assessment of the literature review and the qualitative analysis led to the identification of two key areas of opportunity for the region: (i) growth in high-end manufacturing and, (ii) increased demand for transportation of goods into, out of and within the California – Baja California border region and warehousing/storage services.¹⁶

Key Study Findings

The wealth of information developed through the different activities completed as part of this study was analyzed and identified the following key findings¹⁷:

- 1. Border-crossing traffic flows are large, but are not as significant, in terms of volume, compared to the domestic flows of goods in the region
- 2. Bottlenecks in the SCAG and SANDAG region are not the result of border-crossing flows but are affected by them
- 3. The economic impact of drayage in the SCAG and SANDAG region is considerable
- 4. The main economic development opportunities in the region are linked to the potential for growing high-end manufacturing production and the increase in the offering of transportation modes and warehousing services
- 5. The movement of goods across the California-Baja California is of national significance

Recommendations

Series of recommendations were developed based on a holistic assessment of the findings and the information developed throughout the study. The final recommendations are presented under strategic considerations that impact border-crossing flows of goods in the region.

Strategic Consideration 1: Truck is anticipated to be main transportation mode in foreseeable future for border-crossing goods in the region

Truck is currently the dominant mode for the movement of border-crossing goods and is anticipated to continue as the dominant mode in the medium-to-long term. The study found that highway bottlenecks in the SCAG region are not created by international flows of goods; however, these flows are affected by the bottlenecks. Also, even though this study did not focus on the analysis of the LPOEs in the region, other efforts have shown that congestion exists in these facilities. Therefore, in order to achieve a more efficient movement of border-crossing goods across the entire chain (i.e., from origin to destination), both the bottlenecks at the LPOEs and the highway networks need to be removed.

Specific recommendations identified as part of this strategic consideration include:

¹⁶ More details on the specific opportunities identified are provided in Chapter 7 (Development Opportunities in Baseline Scenario) of this document.

¹⁷ A more detailed description of the study findings is provided in Chapter 10 (Findings and Recommendations) of this document.

RECOMMENDATION 1: PRIORITIZE INVESTMENT IN PROJECTS TO REMOVE HIGHWAY BOTTLENECKS IDENTIFIED IN BOTTLENECK ANALYSIS

The study identified a series of projects already listed in SCAG's 2016-2040 Regional Transportation Plan /Sustainable Community Strategies (RTP/SCS) that would help alleviate the main bottlenecks through which border-crossing goods movements need to move through under the different scenarios forecasted. Some of the identified projects are already under construction while others are in the different planning stages.¹⁸ In the case of projects under construction, it is important to secure funding for their completion and ensure they will be completed on schedule. On the other hand, in the case of projects currently in the different stages of planning and design, it is important to ensure all planning studies are completed within schedule and that sources of funding are identified so they can transition smoothly to the construction stage.

RECOMMENDATION 2: INVEST IN AUGMENTING LPOE CAPACITY

The State Route 11/Otay Mesa East Port of Entry (POE) Project is anticipated to provide fast, predictable, and secure crossings via tolled approach roads that connect directly to a new state-of-the-art POE serving both personal and commercial vehicles. Similarly, there is a project to expand truck and auto inspection lanes at the existing LPOE in Calexico East. These two projects should be given a high priority in terms of local support and funding in order to ensure the bottlenecks at the LPOEs are ameliorated.

RECOMMENDATION 3: PROMOTE CONSTRUCTION OF COLD STORAGE FACILITIES IN IMPERIAL COUNTY TO IMPROVE QUALITY OF AGRICULTURAL GOODS MOVED BY TRUCK

A recommendation specific to Imperial County relates to the construction of cold storage facilities. The important amount of drayage in the area and the delays due to border-crossing inspections at the LPOEs can compromise the freshness of agricultural products, in particular during the peak-period of international trade. Therefore, the construction of cold storage facilities constitutes a solution to preserving the quality and freshness of the agricultural products that cross the U.S.-Mexico border. In these facilities, products can be consolidated after drayage and/or inspection to preserve their freshness before being transported to their final destination (usually via long-haul truck). In addition to improving the quality of the imports, this activity could generate an important economic impact in the region by creating value added activities and jobs.

Strategic Consideration 2: Cali-Baja is competing with other border regions to attract and retain companies that want to be closer to final consumer markets but with ease of access to global networks

The attractiveness of the U.S. – Mexico border to companies producing goods for consumers in the U.S. market is undeniable. However, the Cali-Baja region is not the only border region competing to host these companies. In order for the Cali-Baja region to remain competitive vis-à-vis other border regions, it needs to promote modal diversification and generate redundancies in the transportation networks that serve these border-crossing goods movements.

RECOMMENDATION 4: PROMOTE MODAL DIVERSIFICATION IN REGION TO LEVERAGE THE REGION'S STRATEGIC LOCATION

The overwhelming majority of border-crossing goods in the region move by truck, with rail playing a very small role. Cargo producers and owners prefer redundancy in the transportation networks of the places where they operate and therefore the addition of rail and air cargo facilities would improve the prospects of Cali-Baja to attract them. Specific initiatives that would diversify the supply of transportation alternatives in the region include the development of an intermodal terminal in Tijuana to transport automobiles, the rehabilitation of the Desert Line and improving rail connectivity of El Centro with points to the east of the

¹⁸ The comprehensive list of projects is provided in Chapter 10 (Findings and Recommendations) of this document.

U.S. and the development of the Holtville Cargo Airport to transport high-value, low volume goods. The implementation of these specific initiatives requires the confluence of private and public interests. As such, the role of the public agencies in the region could be that of facilitating discussions and generating consensus on the importance of these initiatives.

Strategic Consideration 3: Performance and level of integration of supply chains in the region is directly linked to characteristics of border-crossing processes

The movement of goods across the border in the region is undoubtedly sensitive to border-crossing wait times at the LPOEs. Technological advances can be applied to different stages of the border-crossing process to expedite it.

RECOMMENDATION 5: PROMOTE USE OF STREAMLINED PROCESSES AND STATE-OF-THE-ART TECHNOLOGICAL ADVANCES

There are several streamlined processes and state-of-the art technologies that can be applied to the freight border-crossing experience that would reduce wait times at LPOEs and allow for a larger degree of integration of the supply chains on both sides of the border. Some specific improvements include the use of non-intrusive inspection methods for cargo, the electronic transmission of data of cargo prior to arriving at LPOE and the use of pre-inspection at point of origin (for example, maquiladora plant) combined with the use of GPS tracking of trucks between the origin and the LPOE. The implementation of the proposed improvements at a border-wide scale requires the agreement and buy-in from several stakeholders and may not occur in the short-term. However, Cali-Baja authorities could request CBP and other agencies the implementation of pilot programs at the local level that can eventually be transformed into a permanent component of the border-crossing process.

Strategic Consideration 4: A large number of agencies and stakeholders on both sides of the border are involved in the movement of goods

The list of government agencies involved in the movement of goods across the border is long. In addition to the agencies, there are direct and indirect private stakeholders that are also involved in the movement of the goods. There are several initiatives implemented by individual agencies and stakeholders that do not realize their maximum potential due to a lack of coordination with other initiatives being deployed by other agencies or stakeholders.

RECOMMENDATION 6: PROMOTE HIGHER LEVELS OF COORDINATION BETWEEN AGENCIES AND STAKEHOLDERS TO ACHIEVE EFFICIENT SHIPMENT OF GOODS ACROSS THE BORDER

Agencies in the Cali-Baja region could lead a group similar to a binational supply-chain council where discussions between all the relevant agencies and stakeholders take place. Those discussions should be aimed at achieving the efficient movement of goods across the binational region and to coordinate the implementation of different programs available in the region and their integration with border-crossing procedures.

Strategic Consideration 5: The State of Baja California is aggressively trying to attract producers and their suppliers to the region

The government of Baja California is investing in attracting manufacturing companies to the region as a way to strengthen its production base. The state is doing promotional and pushing for better tax conditions for maquiladoras on Mexican side.

RECOMMENDATION 7: HARMONIZE POLICIES ON BOTH SIDES OF THE BORDER TO MAKE THE ARGUMENT MORE APPEALING

The attractiveness of the region as a whole could be enhanced by introducing policies on the U.S. side of the border that reinforce or complement the policies introduced on the Mexican side. An initial list of policies could be developed in consultation with staff from the State of Baja California. This list could be adapted/expanded as the binational region assesses their effectiveness in attracting new companies.

Strategic Consideration 6: Supply chains are constantly evolving, looking for ways to minimize cost and/or reach markets faster

Supply chains in the region show changes over short periods of time. This study analyzed representative supply chains in the area, but local agencies should continue to learn about them to understand their evolution in future years.

RECOMMENDATION 8: CONTINUE FUNDING GOODS MOVEMENT STUDIES TO BETTER UNDERSTAND THEIR CHARACTERISTICS

Global trade and transportation costs driven by oil prices and other macro variables can significantly affect the way goods move across the border.

It is important to continue studying the movement of goods across the border to identify the new requirements imposed by production processes and times to market on supply chains. Furthermore, the integration of the findings and recommendations stemming from studies that analyze different perspectives on border-crossing goods movement will shed a brighter light on the future of domestic and international movement of goods as well as on the policy options to make their transportation more efficient.