

Logistics Analysis of the Seaport of Guaymas in the Supply Chain of Regional Companies

Executive Summary

This document shows the summary of the most relevant findings of the project activities. This project was conducted for the Guaymas Port Administration with the collaboration of Continental Automotive Systems of Nogales, under the promotion of the Economy Secretariat of the State of Sonora, Mexico and the “PROLOGYCA” Federal Fund. The most relevant findings are the following:

- The manufacturing industry (“*maquiladora*”) is the most representative of the region under the influence of the Port of Guaymas. The logistic networks used by these companies to transport their raw materials and finished goods show an oversaturation state in their most important nodes. These nodes are basically the sea and air ports used for import/export of containerized merchandise. This conclusion was based on interviews done to logistics experts of the international industry on the region and on several reviewed studies of previous research.
- The industry of the region under the scope of this study –specifically the manufacturing industry- need to develop and logistic metrics that are aligned to the nature of their operations and current situation. Several alternatives to increase efficiency in their supply chains are explored in the present project; focusing in those related to the commercialization of merchandise with the Far East countries. A logistic network comparison methodology is proposed as part of the study. This methodology focuses on the identification and impact of the additional logistics costs derived from the existing variability in container operations within the available ports.
- Additionally to the previous findings, the research team used statistics models to estimate the demand of containerized cargo generated by the industry in the region of study. Other models were used to determine the share of this demand that could be potentially redirected by the industry to an effective container operation in the Port of Guaymas.
- Operation parameters were defined in terms of variability for a possible container service in the Port. These were part of the recommendations made to the Guaymas Port Administration. The recommended action for the port is to align the Container Terminal construction contest to meet these parameters to provide an efficient service to region. These were obtained as part of a sensitivity analysis made to the results of the comparison methodology. The overall findings support the implementation of the container terminal as an economic benefit for the region.