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CONSEJO SECTORIAL DE MINISTROS DE TRANSPORTE DE CENTROAMÉRICA

Subsistema de Integración Económica Centroamericana
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COMIECO

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REGIONAL MASTER PLAN 2035

on Mobility and Logistics

JICA

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SECRETARÍA DE INTEGRACIÓN ECONÓMICA CENTROAMERICANA

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Central America, 2023

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Freight containers.

Table of Contents

	Contents	Page
	Presentation	19
	Introduction	21
CHAPTER 1		**Page**
1	**Context**	26
1.1	Background of the Regional Master Plan on Mobility and Logistics 2035	26
1.2	Existing transportation network and challenges	27
CHAPTER 2		**Page**
2	**Frameworks for Regional Master Plan Formulation**	50
2.1	Socio-economic Framework	50
2.2	Regional and National Policies on Spatial Development	53
2.3	Sustainable Environmental Framework	61
2.4	Intra-regional Legal Framework	64
CHAPTER 3		**Page**
3	**Vision and strategic objectives**	84
3.1	Vision and strategic objectives	84
3.2	General guidelines	85
3.3	Relationship between strategic objectives and general guidelines	86
3.4	General strategies	87
3.5	Strategies by axis	88
3.6	Environmental Assessment (SEA)	118
CHAPTER 4		**Page**
4	**Mobility & Logistics Development on 11 Strategic Corridors**	122
4.1	Mobility and Logistics Development Strategies based on Strategic Corridors	122
4.2	Chronological Development of Strategic Corridors	196
CHAPTER 5		**Page**
5	**Immediate Action Plan (AIP)**	204
5.1	List of Identified and Prioritized Projects in Level 1 (Regional)	205
5.2	Project Datasheets	207
CHAPTER 6		**Page**
6	**Investment & Funding Mechanisms**	226
6.1	Required Investment and Funding Mechanisms	226



6.2	Financial Framework	228
6.3	Financing with Public Funds	233
6.4	Funding with Mixed and Private Funds	234
6.5	Regional Pre-Investment Fund for Infrastructure Projects	244
6.6	Implementation of M/P Funding Mechanisms via PPP	244
6.7	Coordination of Financial & Technical Cooperation Efforts	249
CHAPTER 7		**Page**
7	**Implementation Mechanisms for the Regional Master Plan on Mobility and Logistics 2035**	252
7.1	Institutional Model for Implementation	252
7.2	Sectors and Key players	252
7.3	Organizational agencies for coordinated implementation	255
7.4	Regional capacity building	258
7.5	Follow-up and monitoring of the Regional Master Plan	265
7.6	**Final considerations**	283
APPENDIX		**Page**
	Regional Master Plan Project Proposal	303

Diagrams

CHAPTER 6		**Page**
1	Type of Service Purchase	236
2	Self-sustainable service types	236
3	Mixed type	237
4	Technical Assistance Focused on PPPs	247
5	Typical PPP model	248
CHAPTER 7		**Page**
6	Governance of the coordination mechanism for M/P implementation.	254
7	Governance of strategic corridor projects	256
8	Proposed organization chart of SIECA's DITIL.	260
9	Structure of the M/P coordination, evaluation & follow-up mechanism	266
10	Detail of the structure of the M/P coordination, evaluation and follow-up mechanism.	267
11	Concept of monitoring and evaluation of the M/P.	268

Figures

CHAPTER 1		Page
1	Regional Development Policy and Strategy.	26
CHAPTER 2		**Page**
2	Population distribution in Central America 2021 and 2035.	51
3	Coordinated border management model	77

Graphs

CHAPTER 2		Page
1	Population trends and projections (2011-2035) (millions of inhabitants).	50
2	Population Growth Rates (2011-2035).	51
3	GDP per capita (USD per year, current exchange rate).	52
4	GDP growth rate (% per year nominal rate).	52
CHAPTER 4		**Page**
5	C1 Amount of investment.	129
6	C2 Amount of investment.	137
7	C3 Amount of investment.	145
8	C4 Amount of investment.	151
9	C5 Amount of investment.	157
10	C6 Amount of investment.	163
11	C7 Amount of investment.	169
12	C8 Amount of investment.	175
13	C9 Amount of investment.	181
14	C10 Amount of Investment.	187
15	C11 Amount of Investment.	193
CHAPTER 6		**Page**
16	Estimated investment required for implementation by phase and sector (USD million)	228
17	Projections of state revenues and expenditures (in millions of USD)	229
18	National revenues and expenditures 2021 (USD million)	229
19	Index of indebtedness, historical & projected (2016-2026)	229
20	Public investment in the transport sector (USD million).	230
21	GFCF / current GDP	231
22	GFCF projection	232

23	Expected GFCF compared to M/P investment (USD billions)	233
24	PPP Implementation Capacity Index	246

Infographics

CHAPTER 4		Page
1	C1 datasheet	130
2	C2 datasheet	138
3	C3 datasheet	146
4	C4 datasheet	152
5	C5 datasheet	158
6	C6 datasheet	164
7	C7 datasheet	170
8	C8 datasheet	176
9	C9 datasheet	182
10	C10 datasheet	188
11	C11 datasheet	194
12	Proposal of Chronological Development of Strategic Corridors	200

Maps

CHAPTER 1		Page
1	Existing Transport Network	29
CHAPTER 2		**Page**
2	Regional development corridors.	53
3	Master Plan for the Gulf of Fonseca.	53
4	Functional structures in the PNLOG/PENLOG.	59
5	Results of the Environmental Sensitivity Analysis.	62
6	Results of disaster risk analysis caused by natural phenomena.	62
7	Development suitability result.	63
8	Railways studied as part of the Mesoamerican Integration Projects	73
CHAPTER 4		**Page**
9	Existing CA Road Network and Strategic Corridors	123
10	C1 Pacific Corridor: (Guatemala/Mexico GT-MX)- Panama (PA)	129
11	C2 Interior Corridor: El Ceibo/ Chiriquí (GT-PA)	137
12	C3 Pan-American Corridor: El Salvador/Honduras (SV-HN) - México/Guatemala (MX-GT)	145

13	C4 Interoceanic Corridor: Guatemala (GT)- Honduras (HN)	151
14	C5 Interoceanic Corridor: El Salvador (SV)- Honduras (HN)	157
15	C6 Interoceanic Corridor: Honduras (HN)	163
16	C7 Interoceanic Corridor: El Salvador (SV) - Honduras (HN)	169
17	C8 Interoceanic Corridor: El Salvador (SV) - Guatemala (HN)	175
18	C9 Interoceanic Corridor: Nicaragua (NI)	181
19	C10 Interoceanic Corridor: Costa Rica (CR)	187
20	C11 Interoceanic Corridor: Panamá (PA)	193
CHAPTER 7		**Page**
21	RFID reading points in Central America	280

Photographs

CHAPTER 1		**Page**
1	CA Highway. Escuintla, Guatemala.	28
2	Sugar cane plantation. Guatemala.	31
3	Traveling by bus. Costa Rica.	33
4	Sea port, Panama.	38
5	Golosón Airport, La Ceiba, Honduras.	40
6	Guatemala Railroad.	42
7	El Amatillo Border Crossing, El Salvador.	45
8	Product logistics.	47
CHAPTER 2		**Page**
9	Honduras Airport.	71
10	Road transport. Nicaragua.	81
CHAPTER 3		**Page**
11	Transport of Passengers. Guatemala.	92
12	Road Infrastructure.	94
13	Sea Port, Panama.	100
14	Port of Acajutla, El Salvador.	102
15	Juan Santamaria International Airport, Alajuela, Costa Rica.	104
16	Railway, Tecún Umán, Guatemala.	110
17	Border Crossing. El Amatillo, El Salvador.	114
18	SDGs and the Environment.	119
CHAPTER 4		**Page**
19	Highways, Guatemala.	125
20	Panama Canal, Panama.	126



21	Guatemala - Panama	132
22	Panama	134
23	El Ceibo Border Crossing. Guatemala-Mexico.	138
24	Sea Port, Panama.	141
25	El Amatillo Border Crossing, El Salvador.	142
26	Puerto Quetzal, Guatemala.	148
27	Guatemala - Honduras	152
28	Port of Acajutla. El Salvador	154
29	Port of Acajutla (SV) - Puerto Cortés (HN)	159
30	San Fernando de Omoa Fort, Honduras.	160
31	Gulf of Fonseca, Honduras.	165
32	Port of La Unión, El Salvador.	166
33	Highway, El Salvador.	171
34	Port of Acajutla, El Salvador.	172
35	Guatemala - El Salvador	176
36	Port of Corinto, Nicaragua.	178
37	Honduras - Nicaragua	182
38	Bahía del Muelle de Moín, APM y Limón. Costa Rica	184
39	Puerto Caldera - Puerto Limón/Moín. Costa Rica.	189
40	Panama	190
41	Port of Colón - Port of Balboa, Panama.	194
42	Customs Control, El Salvador.	199
CHAPTER 5		**Page**
43	Immediate Action Plan (IAP)	205
44	Cross-cutting Projects and Initiatives.	206
45	Short-Sea Shipping.	210
46	Regional Truck Parking Area Information Platform, Immediate Action Plan (IAP).	213
47	Truck Driver and Cargo Safety.	214
CHAPTER 6		**Page**
48	Freight logistics	243
Final Considerations		**Page**
49	Costa Rica	282

Tables

CHAPTER 2		Page
1	National transport and logistics plans.	54
2	List of main logistic nodes in the PNLOG/PENLOG.	57
3	List of secondary logistics nodes in PNLOG/PENLOG	58
4	List of logistic functional hubs in PNLOG/PENLOG.	60
5	Relevant aspects of the main treaties.	64
6	Administrative Acts.	66
7	Basic port laws	68
8	Maritime administration laws and regulations	68
9	Ratification Status of Agreements.	69
10	Railway laws and technical standards	72
11	Routes of main railway projects identified in IDB study	73
12	Functional classification system	74
13	Design of vehicular dimensions (in meters)	75
14	Functional classification system	76
15	Laws and regulations related to the logistics sector in Central America	79
16	Environmental and social legal frameworks of the Central American Countries	81
CHAPTER 3		**Page**
17	PMRML and M/P guidelines.	85
18	Relationship between M/P strategic objectives and PMRML general guidelines	87
CHAPTER 4		**Page**
19	Project per Axis C1	130
20	Project per Axis C2	138
21	Project per Axis C3	146
22	Project per Axis C4	152
23	Project per Axis C5	158
24	Project per Axis C6	164
25	Project per Axis C7	170
26	Project per Axis C8	176



27	Project per Axis C9	182
28	Project per Axis C10	188
29	Project per Axis C11	194
CHAPTER 5		**Page**
30	Projects and Thematic Initiatives of the Master Plan	205
31	Cross-cutting Projects and Initiatives	206
CHAPTER 6		**Page**
32	Investments required to implement the M/P by sectoral axis (in millions of USD)	227
33	Total investments required by country and time period (in millions of USD).	227
34	Methods of private infrastructure funding.	237
35	Applicable funding methods for projects.	239
36	Legal Framework for PPPs in Central America.	245
CHAPTER 7		**Page**
37	Proposed Strategic Level Impact Indicators.	272
38	Proposed M/P performance indicators	273
39	Proposed M/P monitoring indicators or outputs	277
40	RFID tag coverage.	281

1. Acronyms and Abbreviations

A	
AAC (PA)	Civil Aviation Authority (Panamá)
AAC (SV)	Civil Aviation Authority (El Salvador)
AHAC	Honduran Civil Aviation Agency
AMP	Maritime Port Authority (Panamá)
PPP	Public Private Partnership
AREMA	American Railway Engineering and Maintenance-of-Way Association
TA	Technical Assistance
ATTT	Transit and Land Transportation Authority (Panamá)
ARMR-OEA	Regional Mutual Recognition Arrangement - AEO

B	
BCIE	Central American Bank for Economic Integration-CABEI
BCP	Business Continuity Plan
DF/R	Draft Final Report
BID	Inter-American Development Bank- IADB

C	
C.A.	Central America
CCC	Joint Coordination Committee
CE	European Commission-EC
CEIE	Center for Studies for Economic Integration of SIECA
CEPA	Autonomous Port Executive Committee (El Salvador)
CEPAL	Economic Commission for Latin America and the Caribbean-ECLAC
CIV	Ministry of Communications, Infrastructure and Housing (Guatemala)
CLI	Intersectoral Logistics Commission
COCATRAM	Central American Commission on Maritime Transport
COMIECO	Council of Ministers of Economic Integration
COMITRAN	Sectorial Council of Transport Ministers of Central America
COSEFIN	Council of Ministers of Finance of Central America, Panama, and the Dominican Republic
COT	Technical Operational Committee
COVID-19	SARS-Cov-2 Disease in 2019

CR	Costa Rica
CTRML	Regional Technical Commission on Mobility and Logistics

D

DUCA	Central American Single Declaration

E

EAE	Strategic Environmental Assessment-SEA
ECFCC	Central American Strategy for Trade Facilitation and Competitiveness focused on Coordinated Border Management
EDS	Energy Dispersive X-ray Spectroscopy
EU	European Union
EUA	United States of America-USA

F

FAL	International Maritime Traffic Simplification Convention
FBCF	Gross Fixed Capital Formation- GFCF
FEGUA	Guatemalan Railway
FENADESAL	National Railways of El Salvador
FMS	Fleet Management System
FNH	National Railway Honduras
FRA	Federal Railroad Administration (USA)
FYDUCA	Central American Invoice and Single Declaration

G

GAM (CR)	Greater Metropolitan Area (Costa Rica)
GATT	WTO General Agreement on Tariffs and Trade
GCF	Coordinated Border Management- CBM
GT	Guatemala

H

HN	Honduras

I

IAP	Immediate Action Plan
ICOR	Incremental Capital Output Ratio
INCOFER	Costa Rican Railroad Institute
INSEP	Ministry of Infrastructure and Public Service (Changed to SIT in 2022, Honduras)
IATA	International Air Transport Association

J

JAPDEVA	Port Administration and Economic Development Board for the Atlantic Coast of Costa Rica
JICA	Japan International Cooperation Agency
JST	JICA Study Team

M

MCES	Organization: Coordination, Evaluation and Follow-Up Mechanism
MOP (PA)	Ministry of Public Works (Panama)
MOPT (CR)	Ministry of Public Works and Transport (Costa Rica)
MOPT (SV)	Ministry of Public Works and Transport (El Salvador)
M/P	Regional Master Plan on Mobility and Logistics 2035
MSF	Sanitary and Phytosanitary Measures- SPS
MTI (NI)	Ministry of Transport and Infrastructure (Nicaragua)

N

N/A | N	Not Applicable / Not Available
NI	Nicaragua

O

OACI	International Civil Aviation Organization-ICAO
OD	Origin-Destination
ODS	Sustainable Development Goals-SDG
OEA	Authorized Economic Operator-AEO
OMC	World Customs Organizations-WCO
OMI	International Maritime Organization-IMO
ONU	United Nations Organization



P

PA	Panama
PAI	Immediate Action Plan
PIAI	Immediate Action Cargo Vehicle Parking Area Information Platform
PCRC	Panama Canal Railway Company
PDCC	Central American Digital Trade Platform
PENLOG	National Strategic Plan on Cargo Logistics (GT)
PFI	One Stop Border Post- OSBP
PIB	Gross Domestic Product-GDP
PMRML	Central American Regional Mobility and Logistics Framework Policy
PNLOG	National Plan on Cargo Logistics (SV), (HN), (CR), (NI), (PA)
PNT	National Transport Plan
Pyme	Small and Medium-Sized Enterprises-SMEs

R

RFID	Radio Frequency Identification
RICAM	International Network of Mesoamerican Highways
RTV	Vehicle Technical Revision

S

SICA	Central American Integration System
SIECA	Central American Economic Integration Secretariat
SIEMPCA	Central American Maritime Port Statistical Information System
SIG	Geographic Information System-GIS
SIT	Intelligent Transportation Systems
SIT (HN)	Infrastructure and Transport Secretariat Honduras (Formerly INSEP)
SV	El Salvador

T

TA	Technical Assistance
TELCA	Electric Freight Train of Limón (Costa Rica)

TEU	Twenty-Foot Equivalent Unit
TMCD	Short Sea Shipping-SSS

U

UN	United Nations
USAID	United States Agency for International Development
USD	United States Dollar
UVP	Passengers Car Unit

V

VUCE	Single Window for Foreign Trade

Z

ZAL	Logistic Activities Zone-LAZ
ZEE	Special Economic Zones-SEZ



Flags of Central America. SIECA Headquarters in Guatemala.

Presentation



Francisco A. Lima Mena
Secretary-General
SIECA

SIECA

The Regional Master Plan on Mobility and Logistics 2035 is the result of more than five years of planning, analysis, and consultation conducted throughout Central America. It aims to comply with the mandate given at the Ordinary Meeting of Presidents and Heads of State of SICA in December 2017 stemming from the Central American Regional Mobility and Logistics Framework Policy (PMRML).

In order to strengthen economic integration and benefit from the intraregional market, multiple structural conditions must be improved, such as the quality of borders infrastructure, the standardization of control procedures at border posts, capacity building for government agencies responsible of controls, raising awareness in the private sector about regulatory and procedural compliance, and the implementation of technologies that allow for process automation, among many other measures that could be noted.

The Plan offers a forward-looking and innovative instrument for regional planning in terms of infrastructure and intends to respond to one of the most evident challenges in the economic integration agenda. The vision of this instrument is to turn the Central American region into a logistics HUB for the mobility of people and commodities through the implementation of a portfolio of infrastructure projects structured along six strategic axes: road, aviation, port-maritime, railway, urban logistics, and coordinated border management. Fundamentally, this Master Plan also offers a full articulation with the Sustainable Development Goals (SDGs) agenda, as it seeks to impact goals such as the increase in productivity and competitiveness in line with the climate and environmental challenges.

It is important to acknowledge the leading role played by regional institutions in the approval of the Master Plan 2035. This endeavor has been possible thanks to the leadership and intersectoral coordination of the Sectoral Council of Transport Ministers of Central America (COMITRAN), the Council of Ministers of Economic Integration (COMIECO) and the Council of Ministers of Finance of Central America, Panama, and the Dominican Republic (COSEFIN). The completion of this initiative ratifies the unwavering support of the Japan International Cooperation Agency (JICA) to the Central American region's sustainable development agenda and the ongoing technical support provided by the Central American Economic Integration Secretariat (SIECA) in the regional integration agenda.



ONODERA Seiichi
Vice President of the Japan International Cooperation Agency

JICA

Upon the request of the Central American Integration System (SICA), the Government of Japan decided to carry out the "Project to Strengthen Capacities in the Elaboration of the Regional Master Plan on Mobility and Logistics for Sustainable Regional Development in the Framework of Central American Economic Integration," which was entrusted to the Japan International Cooperation Agency (JICA).

JICA worked with a Study Team comprised of a Joint Venture among Oriental Consultants Global Co., Ltd. (OCG), Nippon Koei Co., Ltd. (NK), ALMEC Corporation (ALMEC), the Overseas Coastal Development Institute of Japan (OCDI), and the International Development Center of Japan (IDCJ). The team led by Mr. Shibata Junji of Oriental Consultants Global Co. Ltd. was sent to Central America during the period of November 2019 to June 2023.

The Study Team carried out field surveys and formulated the Master Plan on Mobility and Logistics 2035 based on discussions with key stakeholders from the Government of the Republic of Costa Rica, the Government of the Republic of El Salvador, the Government of the Republic of Guatemala, the Government of the Republic of Honduras, the Government of the Republic of Nicaragua, the Government of the Republic of Panama and the Secretariat for Central American Economic Integration (SIECA) through the regional framework represented by the Sectoral Council of Transport Ministers of Central America (COMITRAN).

This Master Plan was prepared based on the results of the intensive analysis of all the data and information collected during the study and offers a set of recommendations for the overall improvement of Mobility and Logistics in Central America.

It is my hope that this report will contribute to sustainable regional development within the framework of the Central American economic integration.

I also wish that the cordial relationship between Central America and Japan has been strengthened as a result of this collaborative study.

Lastly, I would like to express my sincere gratitude to all the stakeholders involved in the Project for their unwavering support and close cooperation.



Mobility and Logistics.

Introduction

The Regional Master Plan on Mobility and Logistics 2035 (hereinafter M/P), instructed by the Summit of Heads of State and Government of the SICA member countries in December 2017, is a guiding tool that defines the short, medium, and long-term vision, objectives, and sectoral actions for the main modes of transportation in Central America. It is structured around strategies for strengthening and modernizing 11 strategic corridors. The M/P proposes financial and implementation mechanisms with a planning horizon of 2035 to be implemented through phases and levels.

The M/P is based on the guidelines of the Regional Mobility and Logistics Framework Policy (PMRML) and draws on previous relevant planning efforts, including the National Plans on Cargo Logistics (PNLOG/PENLOG).

The preliminary work for the development of the M/P began in 2020, when the Regional Technical Commission on Mobility and Logistics (CTRML) was instructed by COMITRAN to coordinate the formulation of the Plan. The latter, with the specialized assistance from SIECA, the technical coordination of a team of experts hired by JICA, and the support of various governing bodies and national organizations from both the public and private sectors, as well as international organizations under the coordination and guidance of SIECA, and the support of the Intersectoral Logistics Commission (CLI), collected and systematized relevant information available in the six Central American countries. As a result of these efforts, several reference documents were produced to complement and serve as the foundation for this Master Plan. The M/P consists of seven chapters: Chapter 1 summarizes the main challenges determined by the social, economic, and physiographic framework, and the findings of the data collection phase; Chapter 2 describes the socioeconomic, environmental, and legal frameworks, as well as regional and national spatial development policies; Chapter 3 sets out the vision and strategic objectives to be achieved, as well as the spatial strategies at the cross-cutting and sectoral levels defined in the PMRML; Chapter 4 presents the profiles of the 11 proposed Strategic Corridors; Chapter 5 summarizes the Immediate Action Plan that starts with short-term projects (by 2025) as part of the implementation of the M/P; Chapters 6 and 7 describe the implementation mechanisms of the Master Plan in its temporal, financial, and institutional aspects. It is important to mention that the mechanisms and resources proposed for funding the M/P are presented in an indicative, non-binding manner, to be considered at the discretion of the Central American governments pursuant to the laws and priorities of each country.

The M/P assumptions and projections are based on scientific evidence to develop the transport demand forecasts, as well as trade patterns for Central America's strategic products, based on interview surveys with key leaders and stakeholders, trade statistics, the Central American Single Declarations (DUCA), traffic count surveys conducted after the post-pandemic economic reactivation (COVID-19), interview surveys with consigners, trucking companies, and transport cargo service providers. In addition, GIS tools and traffic simulation models were used to support the scenarios that guided the planning process. The M/P used demographic forecasts from ECLAC and National Statistics Institutes as the basis for predicting traffic volumes up to 2035. In addition, the national income trends were considered, and investment proposals were made to reduce income disparities in the region based on data from ECLAC, Central Banks, and Ministries of Finance. Forecasts and data from each country's key industrial sectors were also considered, as well as the analysis of the nature of the growing trade relations with Mexico, the United States, and Europe and the expansion of trade with new economic partners in Asia-Pacific and the Middle East.

In addition, the Master Plan takes into account global challenges such as climate change, its consistency with the Sustainable Development Goals (SDGs), and Digital Transformation (DX). These factors are considered to ensure that the proposed integrated logistics system is relevant and consistent with current and future needs and challenges, thus ensuring resilient and sustainable development for the region.

The M/P approach is comprehensive and seeks to tackle in a holistic manner the various aspects that influence cargo transport and logistics in the region. To support the construction of an integrated regional mobility and logistics system, policies and programs were developed for three spatial levels: (Level 1) Regional: all of Central America; (Level 2) Subregional: multiple adjacent countries; (Level 3) National: each country.

However, it is important to recognize that the M/P does not address specific proposals for mobility of people. This was not possible because there was not enough regional information to support specific proposals in this regard. It was noted that there are currently no mechanisms or entities that systematically collect and report specific data to estimate the flow of people and commodities within each city (small-scale logistics within the city). Therefore, given the importance and complementary nature of the matter, it remains a pending task to conduct individual studies for the main urban centers of the region (level 3) in order to support proposals to address urban transport problems and build an integrated urban transport and logistics system.

In conclusion, it is worth noting that this Master Plan is the first of its kind and represents a milestone for the Central American region. The integrated assessment of strategies and projects at both the regional and subregional levels is an innovative contribution, since harmonization among neighboring countries is particularly important for building a multi-modal transport system that supports competitive logistics systems throughout the region. The multilevel approach leads to the formulation of programs for strategic corridors that foster equitable development in the region and promote greater prosperity in territories that are currently less reachable. In this regard, although this Master Plan does not directly address urban transport issues, its implementation and institutional strengthening strategies allow for solid steps toward the creation of an integrated mobility, transport, and logistics system with a regional scale as its context. For this reason, it is expected that the Master Plan will be conceived as a dynamic document subject to extensions, updates, and refinements, especially to the extent that institutional capacities in the region are strengthened through the implementation of short-term actions, and with the hope that it will be implemented in cooperation with the relevant parties, while taking into account its comprehensive approach and the limitations identified in its formulation.



Transport of Commodities.



Chapter 1

CONTEXT

Contents

1.1 Background of the Regional Master Plan on Mobility and Logistics 2035
1.2 Existing Transport Network and Challenges

Chapter 1. Context

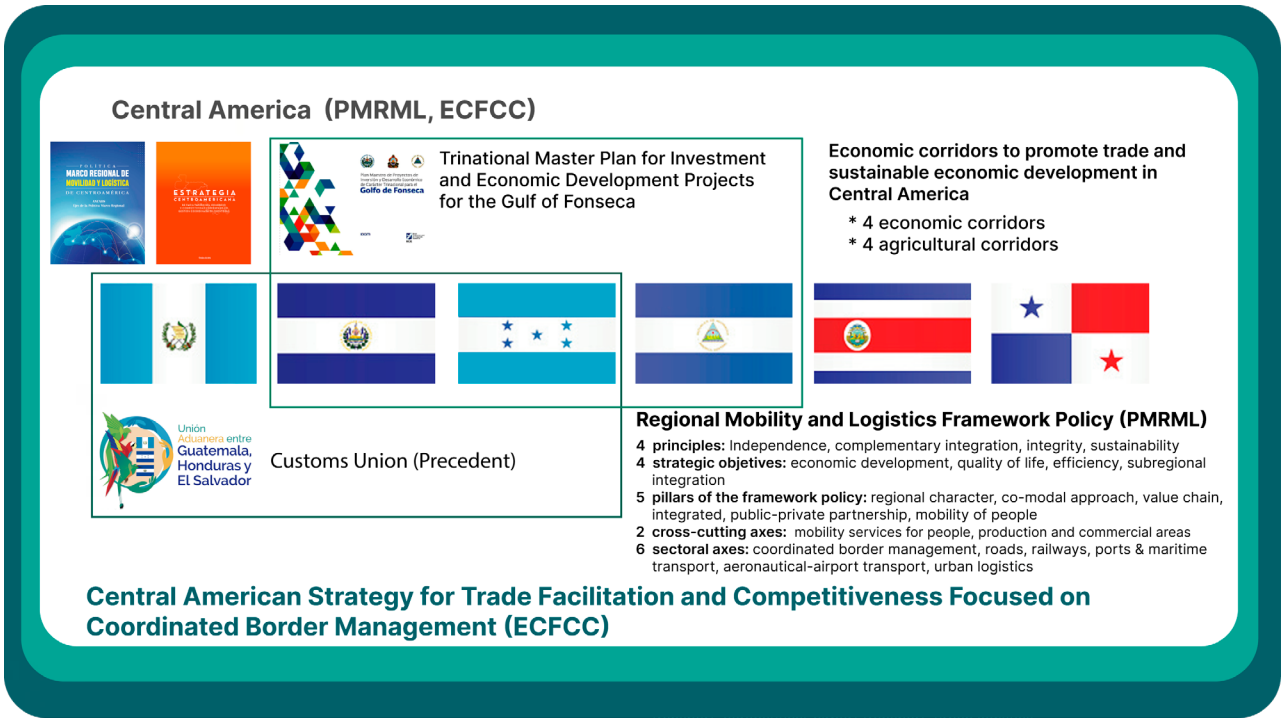
1.1 Background of the Regional Master Plan on Mobility and Logistics 2035

The heads of state and governments of the Central American Integration System (SICA) approved the Central American Regional Mobility and Logistics Framework Policy (PMRML) to harmonize, systematize and unify the six Central American countries in terms of mobility and logistics, in order to have a framework policy that would enable them to overcome the challenges associated with transportation costs and times of people and cargo in the region.

The PMRML was prepared with the assistance of the IDB, ECLAC, JICA and AMEXCID, and with the participation of the public, private and academic sectors of the region. On December 1, 2016, the Sectoral Council of Transport Ministers of Central America (COMITRAN) validated the Framework Policy, and it was approved by the presidents of Central America at the Fiftieth Ordinary Meeting of Presidents of SICA on December 14, 2017.

Consequently, the Japan International Cooperation Agency (JICA), provided technical and financial support to develop the "Project to Strengthen Capacities in the Elaboration of the Regional Master Plan on Mobility and Logistics for Sustainable Regional Development in the Framework of Central American Economic Integration" (the "Project"), which aimed to formulate a comprehensive plan, the "Master Plan on Mobility and Logistics for Sustainable Regional Development within the Framework of Central American Economic Integration" ("Master Plan" or "M/P"). This M/P has been formulated following the upstream policies and guidelines previously set forth in the PMRML and under the technical coordination of the Regional Technical Commission on Mobility and Logistics (CTRML) of COMITRAN and SIECA.

Figure 1: Regional Development Policy and Strategy.



Source: JST.

1.2 Existing Transport Network and Challenges

Mobility needs arise when people have to move in order to carry out various economic, social, touristic, cultural, and religious activities, etc. In other words, the actual location where these activities are conducted is physically separated from the place where the people who carry them out are located. Similarly, in terms of logistics, supply and demand of different products, raw materials or services that are located in different areas need to be transported to where they are required.

These mobility and logistics requirements are addressed by the transport systems that exist between the various points of origin and destination. The capacity, physical conditions and operating conditions of both the infrastructure and the means of transport that make up this system determine the quantity and quality of trips made within a given country or region, which can affect its economic development.

An efficient transport system is one of the key aspects of any country's economic growth and security. Transportation and economic development are closely linked, as development increases the demand for transportation, while the availability of transportation stimulates development through trade and economic specialization.

This is why COMITRAN, through the PMRML and its M/P, seeks to make Central America into a world-class logistics platform for the movement of people and goods, to promote it as a more integrated and competitive region capable of effectively mobilizing its population and supply chains, and to increase and diversify its trade.

The region has more than 148,000 km of roads, of which 6,525 km are classified as Central American Highways (CAs); 256.5 km of operational railway lines; 19 ports on the 2,100 km-long Caribbean coast; 21 ports on the 2,900 km-long Pacific coast; an interoceanic canal; 24 border crossings; 21 international airports; and two air hubs.

Road transport is the primary mode for movement of goods and people in the region. Map 1 shows 2,187 km of roads categorized as CA Highways, running from the Tecún Umán border post at the Guatemala-Mexico frontier to Panama City, forming a transportation corridor along the Pacific that connects the major cargo ports on the Pacific coast, as well as the main international airports.

The following sections describe the characteristics of this transport system and the challenges involved in turning it into a world-class logistics platform for cargo and passenger transportation. This in the context of a vision that considers the global performance of all transport services, treating them as part of a regional logistics and mobility system that determines the competitiveness and quality of life of the population.



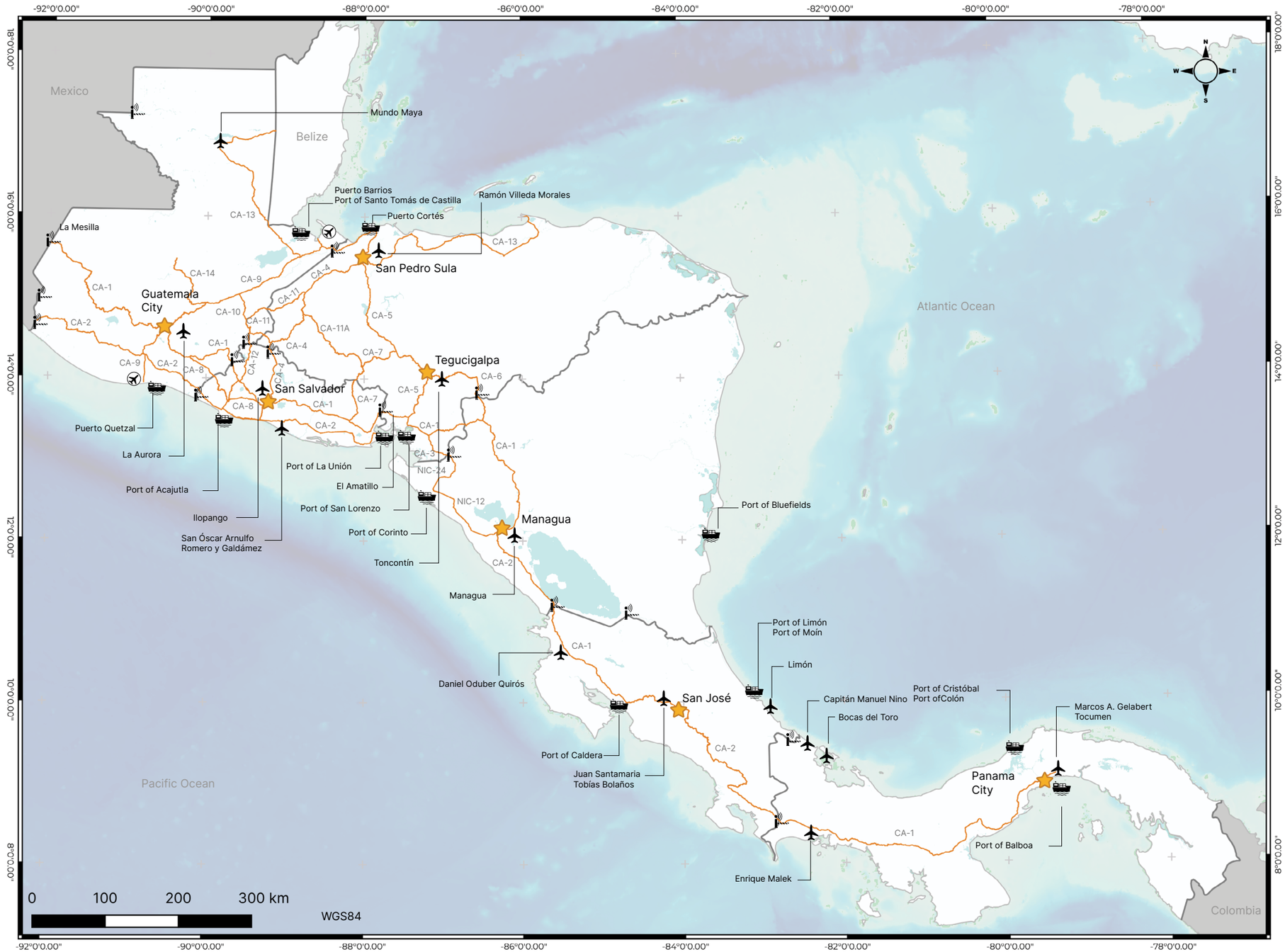
CA Highway. Escuintla, Guatemala.

Existing Transport Network

Central American Highways (CA)

Map 1

Source: JST.



Legend

- Central American Highway
- Existing Sea Port
- Existing Airport
- Domestic airport
- Border Crossing
- Capital City
- Border
- Body of Water



Levels 1 and 2

Cross-Cutting Axis 1:
Productive and Trade Sectors Axis
Challenges at the Regional and Corridor Level

Central America is composed of six small, open economies that structurally depend, on one hand, on the performance of their external sectors for growth, specifically on imports of raw materials, inputs, intermediate & capital goods, and depend, on the other hand, on the export of goods and services. The importance of their exports in international markets is small, since their export volumes have no impact on the prices of such goods and services at the global level. Growth is highly vulnerable to fluctuations in the economies with which they trade and the prices of primary products that they export. Plus, these six countries only export a few products to a limited number of markets, mainly the United States and intraregional markets.

The competitiveness of these products is affected by high transport costs, long transport times, bureaucratic import/export processes and inefficient transport infrastructure. The failure to incorporate Central America into global value chains or the limited configuration of regional value chains, and the inefficiency of the region's participation in global transport and supply chains, are fundamental issues to be addressed in this area. The main challenges can be summarized as follows:

1. Implementation of trade facilitation measures and reduction of obstacles to free transit of goods between countries
2. Improvement in the region's logistics performance.

1. Trade facilitation and reduction of obstacles to the free transit of goods.

- Vulnerability of cargo distribution networks to climate change and natural/manmade disasters events.
- Poor physical condition of secondary and tertiary roads, or roads that are unpaved or unconnected to primary or regional road networks.
- Poor physical condition of primary road network, and road sections that are congested or have traffic bottlenecks.
- Areas lacking alternate roads for products in the event of traffic interruptions.
- Features that impede traffic on road corridors, such as passing through cities, speed bumps, schools along roadsides, livestock along roadways, encroachment on rights-of-way, lack of rights-of-way enforcement, etc.
- Traffic congestion in cities and regulations limiting heavy transport traffic through cities and border crossings.
- Issues of road safety and public order on main highways.

2. Improvements to regional logistics performance

- Lack of structure within intermodal logistics platforms that favor interventions in the main productive chains.
- Little or no inclusion of regional countries in global value chains, and insufficient connections with Mexico and the United States, despite their geographic proximity.
- Insufficient use of information technologies to improve safety and efficiency in regional logistics chains.
- Insufficient private-sector investment in infrastructure for logistics development.

- Lack of adequate studies and planning on the transport infrastructure needs of the productive and commercial sectors.
- Insufficient compliance with regional plans or short-term planning processes, or absence of plans.
- Lack/limited use of transport, mobility and logistics IT platforms.
- Lack of training and capacity building programs for key actors in logistics and productive chains in regional countries.
- Lack of cargo transfer terminals in and around cities.
- Lack of municipal or intermunicipal urban logistics plans.



Sugar cane plantation. Guatemala.

Levels 1 and 2

Cross-Cutting Axis 2: Mobility of People Axis Challenges at the Regional and Corridor Level

Central America requires a profound reorganization of its public transport and human mobility systems. There has been little progress in creating intelligent systems for human mobility, including modal integration, formalization and supervision of operating companies, improvement of control and regulatory compliance capacities, integration of services, improved efficiency and levels of competition, electronic ticket payment systems, traffic management systems, predictability in schedules and routes and the tracking of transport units, etc.

Currently, transportation services in regional countries are offered by informal companies that are inadequate, congested, expensive, inefficient, environmentally unsustainable and unsafe. Many do not have modern equipment or adequate operating conditions, with routes that are not based on adequate planning and that fail to meet market demand.

Vehicle fleets are obsolete and transport operators lack capability to provide quality service. As a result, society faces high costs in terms of traffic accidents, deaths and property damage. Moreover, the vehicle fleet is extremely carbon-intensive and highly polluting (CO2 emissions).

Main challenges can be summarized as follows:

1. **Traffic vehicle fleet infrastructure:**

- Extremely carbon-intensive vehicle fleet with average age between 10 and 30 years old.
- Lack of incentives for electrification.
- Insufficient standards and regulatory frameworks to improve human mobility.
- Insufficient permanent review programs on the operating conditions of public transport operators.
- Lack of information systems on road networks, land traffic and physical condition of roads.
- Inefficient border control systems for movement of vehicles and people.
- Lack of training for transport operator personnel.

2. **Mobility management: safety, regulation and standards.**

- Lack of intelligent road safety systems.
- Lack of adequate signage on highways and urban road corridors.
- Lack of land use policies and incorporation of urban development tools.
- Lack of safe transportation systems for people, poor signage, poor infrastructure; limited transport equipment and Insufficient maintenance; unqualified staff.
- Insufficient traffic engineering and traffic/road safety management in major cities.
- Lack of training to update and transfer knowledge in road safety and traffic engineering.

3. **Quality of public transport services.**

- Insufficient municipal/regional plans for human mobility.
- Insufficient regional/national policies on urban logistics.

4. **Strengthening institutional frameworks.**
    - Lack of understanding of problems due to scarcity of information, data and statistics.
    - Lack of strategic, multi-level and sectoral planning of urban logistics at all levels.
    - Lack of coordination among responsible authorities.
    - Lack of participatory structures in the governance system.



Traveling by bus. Costa Rica.

Levels 1 and 2

Sectoral Axis 1:
Road Infrastructure and Land Transport Axis
Challenges at the Regional and Corridor Level

As mentioned, road transport is the most widely used mode in Central America, both for cargo and passengers. High demand for road transport is mainly due to its frequency and availability, plus the fact that it costs less than other modes.

Of the 6,525 km that make up the CA routes, 21% were in poor condition as of 2012. In addition, lack of maintenance and physical characteristics are inadequate to provide appropriate and safe levels of service for the movement of commodities and people. Longer travel times increase transport costs, and congestion delays affect both carriers and travelers.

The lack of alternative routes and the low resilience of the road network means that traffic interruptions due to natural and manmade causes make transport services particularly vulnerable to disruption or delays. To guarantee continuous operating conditions for regional traffic, it is important to reduce the number of critical sections by ensuring adequate redundancy within the road network.

The following is a breakdown of weaknesses and challenges identified in the road infrastructure and land transport axis.

1. Road infrastructure needs renovation, rehabilitation and maintenance.

- Less than 50% of roads in Central America are paved.
- In the CA Highway network there are 43 road sections identified that need to be improved.
- Insufficient infrastructure to maintain adequate speed in transporting goods and people.
- Congestion in urban areas increases cost and travel times.
- Lack of integrated/effective security systems leaves carriers highly vulnerable.
- Lack of development of regional road infrastructure projects with a spatial approach, designed to control access and protect rights-of-way.
- Outdated weight and dimension standards that cause wear and tear on road infrastructure.
- Overloaded vehicles cause accidents and accelerate pavement deterioration.
- In some countries, funding for existing roads is limited, resulting in insufficient maintenance and rehabilitation.
- Some countries lack necessary legislative tools and processes for acquiring road rights-of-way and easements.
- Secondary/tertiary road networks lack adequate design and capacity and many are not paved.

2. Low resilience and sustainability.

- Some countries lack road planning systems and capacity to optimize framework for intermodal transport systems.
- Road networks in some countries are vulnerable during rainy season, hurricanes, geological events, etc.
- Interruption of access due to natural disasters and manmade causes significantly affects regional land mobility.
- CA road system lacks alternate routes, which can impede flow of cargo in the case of unforeseen events.

- Replacement/repair of damaged infrastructure (esp. bridges) often takes several years and temporary routes are not always adequate for safe passage of goods.
- Growing accident toll due to increased rainfall.
- Lack of mid/long-term planning. Mid-term maintenance plans need solid and flexible financing structure to ensure adequate levels of operation and maintenance over the entire road network.

3. Weak institutional capacity and insufficient financing.

- Resources available for road improvement, construction and maintenance are insufficient.
- Vehicle inspection and licensing are not integrated or standardized across the region.
- With no regionally valid insurance, round trips for transporters within the region are limited.

4. Lack of planning, monitoring and evaluation tools to guide road infrastructure improvement in the region.

- Lack of comprehensive regional policy to set priorities for road improvements as part of regional/ interoceanic corridors.
- Lack of common road evaluation and inventory system.
- Weak management system for controlling weights and dimensions of cargo vehicles

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5. Limited road access at some ports, airports and other transport infrastructure.

- Limited connectivity between urban routes and national routes.
- Lack of high-capacity road networks (multiple lanes in each direction with restricted access) connecting main foreign trade nodes with each other or with other modes.

6. Low-quality/insufficient development of transport logistics services.

- Small companies in transport sector with little financing capacity or human resources, etc.

Levels 1 and 2

Sectoral Axis 2: Port-Maritime Axis Challenges at the Regional and Corridor Level

Ports are among the most important components of the logistics chain as their efficiency affects the costs of the region's imports and exports. Port infrastructure and related services will play a key role in trade facilitation and the development of regional countries.

Within the region there are several ports along the Caribbean and Pacific coasts, most of which have draft of less than 15 meters that prohibits them from receiving larger vessels.

The study identified insufficient infrastructure in several ports, along with weaknesses in the management and administration of the port-maritime system. As a result of these limitations, operational inefficiencies result in congestion and berthing delays.

Since ports connect the region's countries with international markets as the main gateway for the entry and exit of goods and the reception of cruise ships, following are some of the challenges that must be overcome in order to develop competitive ports, where the efficiency and performance of port operations is the determining factor in the costs of providing services.

1. **Weak planning, monitoring and evaluation tools to guide the strategic improvement of port operations.**

    - Little or no coordination between guidelines derived from the Central American Regional Port-Maritime Strategy and the Strategic and Operational Plans on port-maritime matters of Central American countries.
    - In some countries, the port-maritime sector does not have a comprehensive development plan.
    - Little development of strategic work plans (between pairs of countries) for the promotion and implementation of initiatives such as Short Sea Shipping (SSS).
    - In some countries, ports and access routes, show evident signs of congestion, berthing delays, insufficient drafts and limited equipment.
    - Lack of unified statistical data on port operations within the COCATRAM platform, as follows:

        1. Information is not entered using standard definitions.
        2. No cargo analysis is performed.
        3. Key Performance Indicators (KPIs) are not integrated.
        4. No OD cargo analysis is performed.

2. **Low efficiency and resilience in port operations.**

    - No system in place for transferring information between ports.
    - Reduction in business volume and turnover at some shipping companies due to COVID-19.
    - Several ports are reaching high occupancy levels, causing delays in vessel berthing and increasing time and costs of port operations.
    - Congestion at port facility entry and exit gates.
    - Lack of joint action protocols for the intrusive inspection of goods.
    - Few ports have implemented "Port Community Systems" and/or "Terminal Operating Systems" allowing them to exchange information, plan, develop and monitor all facets related to port-maritime operations.

- Lack of standardized operating procedures for handling vessels, goods and passengers in the region.
- Low quality of human resources and lack of development of the necessary clustering process.
- Deficiencies in container handling (dispatch).

3. **Insufficient, obsolete and unsafe port infrastructure.**

- No integrated information on the state of port infrastructure and/or plans for improvement or expansion.
- Lack of specialized infrastructure for cruise ships in some countries.
- Several ports have insufficient berthing capacity due to shallow dockside drafts.
- Efficiency of some ports is hampered by limited containerized cargo handling or lack of gantry cranes, which means only low-capacity container ships can be serviced.
- Lack of port facilities and Port Community Systems (PCS) impedes optimization of port reception and logistics.
- Deficiency of cold chain facilities/equipment and other specialized infrastructure.
- Lack of bathymetric surveys, nautical charts and navigation charts pose great risks to vessels, crews and goods.
- In some ports, insufficient storage capacity hinders operations.
- The region does not have Short Sea Shipping (SSS) routes in place.

4. **Lack of coordination in cargo documentation.**

- Delays caused by multiple inspections and slow procedures due to numerous obsolete technical reports and a high degree of discretion on the part of officials in the application of customs regulations.
- Delays caused by work stoppages (i.e. strikes).
- Lack of coordination among institutions involved in cargo delivery and reception (Customs, Immigration, Health, OIRSA, Government-smuggling, etc.).
- Lack of common regional system for berthing and departure of vessels at port facilities.
- Multimodal transport documentation has not been implemented.

5. **Lack of tariff and financing system.**

- There is no standardized port tariff system and classification at the regional level.

6. **Road congestion around ports.**

- Inadequate access to ports due to population and/or business growth along the entry routes, as well as poor planning in conjunction with municipalities or local governments.
- Lack of areas where trucks can park and carry out procedures; lack of adequate services for drivers (cafeterias, restrooms and rest areas, etc.) prior to entering the port facilities.
- Little or no implementation of appointment systems for the reception and dispatch of goods.

7. **Poor intermodal connectivity or compatibility with other transportation systems.**

    - Lack of specialized road and multimodal infrastructure in the interoceanic zone.

8. **Little use is made of the region's geographic position, access to the Panama Canal and the Tehuantepec Transisthmian Corridor.**

    - The region should take full advantage of the economic benefits that the Panama Canal and the Tehuantepec Corridor (as an alternative to the Panama Canal) offer, such as the development of port infrastructure, free trade zones and logistics services.

9. **Need to promote adherence to and compliance with international maritime transport agreements.**

    - Adherence to and compliance with these and other international maritime transport agreements by Central American countries is essential to promote the safety, sustainability and efficiency of maritime transport in the region. This can attract investment, promote international trade and contribute to the economic and social development of Central American countries, thus taking full advantage of their geographical position and access to the Panama Canal.



Sea port, Panama.

Levels 1 and 2

Sectoral Axis 3: Aeronautical-Airport Axis Challenges at the Regional and Corridor Level

Air transport is crucial to the regional economy and mobility, due to its ability to globally connect people and goods in a fast and efficient manner, including related sectors such as tourism and others.

There are 20 international airports in Central America. Each country has a main airport in or near its capital that serves as a base for cargo and passenger transport. Air transport is used to a lesser extent for cargo, and for passenger traffic, the region is characterized by high air fares between the main cities of regional countries and between these countries and the rest of the world.

Many Central American airports have limited infrastructure which hinders passenger flow and cargo handling capacity. The lack of direct flights between some countries in Central America can also make it difficult to travel from one country to another and limits regional trade. Lack of competition often results in higher prices and limited options for passengers.

Several challenges face the airport system and air transportation in Central America. The study identified key priorities for improvement of infrastructure, safety and competition in the region's aeronautical-airport sector, as detailed below.

1. **Insufficient planning, monitoring and evaluation tools to guide the region in strategically adopting international standards in airport activities.**

   - Regional aviation regulatory frameworks are not aligned with global best practices.
   - Open Skies policy is not yet implemented at the regional level.
   - There is no agreement for the transport of emergency goods.
   - Lack of strategies to highlight and raise awareness about the benefits of air connectivity in the region.

2. **Insufficient infrastructure.**

   - Several airports have facilities that are congested, in poor condition or insufficient to meet demand in the short or medium term.
   - Insufficient institutional transparency hinders participation of industry stakeholders from profitably increasing regional air services.
   - Lack of unified information on airport facilities.
   - Limited capacity for expansion at several existing airports.
   - Limited capacity of cargo facilities.
   - Insufficient cargo screening processes.
   - Low investment in logistics zones adjacent to air cargo terminals.
   - Lack of promotion of growth opportunities through high-value-added logistics or commercial activities.
   - Lack of intermodal connectivity, access problems at some airports and congestion on access roads.
   - Delayed expansion of cargo and passenger facilities due to lack of budget.

3. **Insufficient financing.**

   - Slow implementation of projects due to fiscal constraints.
   - Increase in the price of airline tickets.
   - Lack of private-sector investment.
   - Lack of cost-competitive promotion and efficient airport management in collaboration with the private sector.

4. **Little presence of regional organizations in the airport sector.**

   - There is no regional organization to effectively bring together the Civil Aeronautics Authorities to promote infrastructure, services and equipment projects, etc.
   - Insufficient implementation of international environmental codes and regulations.

5. **Customs processes for cargo control and lack of adequate technology.**

   - X-ray and scanner equipment lacks minimum specifications to effectively perform non-intrusive cargo inspection.
   - Physical screening and documentation processes take longer than international norms due to inadequate procedures for processing cargo manifests.

6. **High fares and limited connectivity on regional flights due to:**

   - Lack of competition.
   - High operating costs.
   - Lack of infrastructure, etc.

7. **Need for regional regulations or standards on air transport and airport facilities to comply with ICAO standards.**

   - Regulations should cover areas such as safety, air traffic management, airport infrastructure, environmental protection and facilitation of air transport.



Golosón Airport, La Ceiba, Honduras.

Levels 1 and 2

Sectoral Axis 4: Railway Transport Axis Challenges at the Regional and Corridor Level

During the 19th century, a major railroad network was developed, including the world's first transcontinental railroad, the Panama Canal Railway. This system was developed to facilitate the transport of local agricultural products to export markets through the ports. Over time, the profitability of this network gradually declined as did its modal share of the transport services market, and now consists of several isolated rail lines with some limited freight or passenger services.

The lack of investment in the railway network since the late 1990s has led to its disappearance in most countries in the region, as well as a large part of its infrastructure. At present, there are only local operations in Honduras, Costa Rica and Panama. There is no interconnected regional rail network, and most of its infrastructure is deteriorated, unmaintained, or simply no longer exists. The diagnostic study conducted for the master plan also identified limited management capacity and major weaknesses in the regulatory framework.

Railway transport offers a variety of benefits when it comes to transporting goods and people and contributing to economic growth. The efficiency, speed, safety and environmental benefits of rail make it a valuable asset to any transportation network.

In order to encourage integrated regional action, it is necessary to develop adequate railway infrastructure and provide sufficient capacity to the management framework of the region's railway transport and mobility system, so as to have a positive impact on reducing intra-regional transport costs and times that favor trade, mobility and all fields of socioeconomic activity through a co-modal approach.

The following is a list of the main limitations identified in the railway system and the challenges to enhance the development of a system that boosts regional economies.

1. **Insufficient planning, monitoring and evaluation tools to provide strategic guidance for railway system opportunities in the region.**

   - Lack of a regional model for integration of national railway projects or a regional strategy.
   - Absence of a strategy for railway revitalization, including priorities.
   - Few or almost no communication links on regional policies for the integration of interoperable rail infrastructure.

2. **Existing infrastructure is obsolete and/or deteriorating.**

   - Deteriorated railway track infrastructure.
   - Lack of a regional railway network.
   - No inventory information on discontinued rail lines.
   - Suspension of railway service.
   - Obsolescence due to lack of maintenance.
   - Increased temperatures contribute to deformation of railway tracks.

3. **Low resilience and civil problems with rights-of-way.**

   - Damage due to natural disasters and human activities.
   - Encroachment and settlement on rights-of-way by local inhabitants and theft of railway assets.

4. **Weak institutional capacity and low competitiveness.**

    - Lack of experience in PPP projects in railway sector.
    - Limited capacity of railway operators.
    - Shortage of human resources.
    - Lack of budgetary resources.

5. **Obsolete legal regulatory and administrative frameworks in various countries.**

    - Lack of regulation and regulatory entities.

6. **Lack of connection of national railway systems in the countries that have such systems.**

    - Lack of demand forecasts to promote binational or subregional railroad projects.

7. **Financing constraints for railway and inter-modal connection projects.**



Guatemala Railroad.

Levels 1 and 2

Sectoral Axis 5: Coordinated Border Management Axis Challenges at the Regional and Corridor Level

Customs and immigration controls carried out at border posts are necessary to ensure security and compliance with laws and regulations. But they can also hinder trade if not managed efficiently. Well-managed border crossings can facilitate international trade, allowing goods to move quickly and without hindrance.

The master plan identifies several challenges in the coordinated border management system, including aspects related to infrastructure, management systems, institutional weaknesses, lack of coordination and standardization of procedures and requirements, etc. These significantly affect the efficiency, productivity, timeliness and quality of international cargo transportation services and the mobility of people.

To address these problems, greater collaboration and coordination among regional countries is required, as well as allocation of adequate resources to improve infrastructure, technology and training of personnel.

Improving the infrastructure and efficiency of border crossings can have a positive impact on job creation and economic growth in the region by facilitating trade, reducing costs, encouraging investment and promoting economic development. It is important for countries to work together to improve the efficiency and security of border crossings and ensure that trade can flow smoothly.

Following is a list of key weaknesses and challenges that must be overcome to improve border management in Central America.

1. **Barriers to implementing planning, monitoring and evaluation tools to guide strategic improvement of border crossings.**

   - Each country uses different electronic platforms to process declarations of goods and carry out controls.
   - When modifications are made to regional procedures, each administration must make its own technological changes, which hinders the administration of the Central American Digital Trade Platform (Spanish acronym PDCC).

2. **Insufficient and obsolete infrastructure needs to be upgraded.**

   - Physical infrastructure is obsolete and does not meet current needs.
   - Access roads at many border crossings need improvement, e.g., no passing lanes for transit cargo or empty trucks.
   - Encroachment by local population or vendors into customs and border control areas.
   - Limited parking space, inspection areas and expansion zones.
   - Lack of control and road safety regulations.
   - With no safe parking and rest areas for drivers, customs areas have become parking areas for trucks and places for drivers to spend the night.
   - Long lines of trucks saturate border access roads, creating dissatisfaction in nearby populated areas and discouraging regional tourism.
   - Lack of infrastructure demarcating and protecting primary customs areas leads to disorderly urban growth and encroachment on land occupied by border facilities.
   - Insufficient investment in improving border post infrastructure.

3. **Poor institutional capacity and resilience.**

   - System interruptions in the exchange of information. Sometimes DUCA F forms are not replicated in some of the countries involved in the process.
   - Shortage of officials to carry out customs controls and regulatory entities; inspections are not carried out in a unified manner, which slows down the processes.
   - Lack of interoperability or interconnectivity of technological information systems between the different authorities involved at the borders.
   - Lack of training for drivers in customs procedures.

4. **Insufficient and inefficient controls**

   - Excessive immigration controls for travel within Central America.
   - Some drivers have judicial restrictions, and some evade controls due to lack of links between immigration systems.
   - Lack of scanners makes it impossible to have an accurate idea of the amount of goods contained in a truck, or whether it contains prohibited goods such as illegal drugs.
   - Trucks and goods do not comply with all stages of customs clearance.
   - Falsification of documents supporting declarations.

5. **Lack of coordination and standardization of procedures and requirements.**

   - Each country uses different processes for goods declarations: some require a DUCA D for goods whose origin is Central America, using the DUCA F only as a certificate of origin, resulting in the need to hire the services of customs brokers. In others, the transmission and presentation of the DUCA F is sufficient.
   - Advance procedures available to customs are not used.
   - Deficiencies in implementing coordinated controls of border authorities (between customs and other regulators).
   - Some regulators (agriculture or immigration) do not have electronic services, such as online payment for services.
   - Requirement for supporting documents with information to be included on goods declarations (Bill of Lading, or B/L, and Inland Transport Document).
   - With the exception of taxes, some countries still do not have a full collection of services such as: seals, non-intrusive controls and parking fees, etc.
   - Duplicated requirements by different border authorities; multimodal transport document has not been implemented.

6. **Other aspects.**

   - Lack of intermodal customs procedures.
   - Limitations in interoperability, security and updating of information.
   - Delays in border crossing procedures affect competitiveness.
   - Lack of inter-institutional coordination in construction and operation of border crossings.



El Amatillo Border Crossing, El Salvador.





Levels 1 and 2

Sectoral Axis 6:
Urban Logistics Axis
Challenges at the Regional and Corridor Level

Urban logistics is the process of planning, operating and controlling the flow of goods, services and information within urban areas. It involves managing the mobility of goods in densely populated areas with limited infrastructure, including home delivery, waste collection and cargo transportation, among other logistics activities.

Urban logistics has become increasingly important due to the rise of e-commerce and the growing demand for fast and efficient deliveries. It involves the coordination of various actors, including suppliers, carriers, logistics companies, retailers, and end customers, in order to ensure that goods are delivered on time and efficiently in a sustainable manner.

As this master plan only addresses aspects of urban logistics related to the transport of goods, it is recommended that subsequent studies be conducted to analyze other aspects of urban logistics.

Since this process in the logistics chain takes place where large populations are concentrated, vehicular congestion is one of the key factors affecting the efficiency of this process, and vice versa, so poor urban logistics planning increases the overall levels of road congestion.

Logistics processes in major cities of the region show deficiencies in areas such as planning, monitoring, infrastructure, means of transportation and institutional management, among others, as detailed below.

1. Insufficient planning, monitoring and evaluation tools to guide the strategic improvement of urban logistics.

- Lack of a regional urban mobility information system.
- Lack of urban logistics plans in the region's major cities.
- Lack of institutional schematics covering the region's major cities and nearby municipalities.
- Urban congestion: apparent lack of coordination with comprehensive urban plans in cities with logistics centers.
- Lack of information on regional cargo, which prevents establishment of alternative strategies, such as cabotage.
- In some major cities, regulations prohibit circulation of cargo trucks during weekday peak hours, increasing logistics costs and time required to transport cargo through metropolitan areas.

2. Insufficient urban logistics infrastructure.

- Chronic traffic congestion in cities.
- Lack of bypass roads to divert heavy traffic through or around major cities.
- Lack of infrastructure for cargo transfer in suburban areas of major cities.
- Need for standardization and harmonization of logistics, as well as common inventory data system.
- Need for truck terminals or cargo transfer stations in suburban areas.

3. Renovation of transport means and increased efficiency.

- Many older trucks, which results in high fuel and maintenance costs due to lower fuel efficiency.
- Lack of co-loading for cargo consolidation.
- Unbalanced cargo flows (empty containers) which increases transport costs.

4. Poor institutional capacity and resilience.

- Lack of alternative logistics corridors and transport networks to serve as alternate routes in event of disasters on primary roads.
- Need to establish regional cooperation mechanisms.
- Need greater cooperation on emergency transportation.
- Difficulty for small/medium-sized companies to gather a large amount of cargo and have their own truck terminals.
- Small transport industry.

5. Other challenges.

- Lack of comprehensive solutions to urban congestion.
- Lack of land use planning, urban development, passenger transport systems and cargo distribution in major cities.
- Inefficient distribution of goods in the cities and limited interaction in planning of urban public transport systems.
- No interaction between urban planning and national planning systems in road infrastructure, logistics, etc.
- Limitations in interoperability, security and the updating of urban logistics information.
- Worsening pollution caused by traffic congestion not only affects the local level, but also regional and global levels.



Product logistics.


REG

Chapter 2

FRAMEWORKS FOR FORMULATION OF THE MASTER PLAN

Contents

2.1 Socio-economic Framework
2.2 Regional and National Policies on Spatial Development
2.3 Sustainable Environmental Framework
2.4 Intra-regional Legal Framework

Chapter 2. Frameworks for Regional Master Plan Formulation

Following the regional context from the previous chapter, this chapter defines the foundation promoting integration of the Central American region by projects contributing to mobility and logistics. This is achieved by the socio-economic framework, regional and national spatial development policies, sustainable environmental framework and the intra-regional legal framework.

2.1 Socio-economic Framework

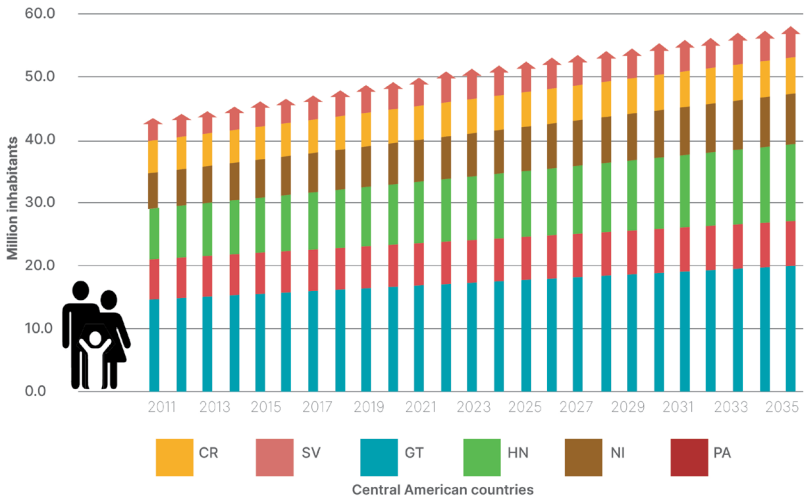
2.1.1 Population

Total population of the six Central American countries reached 50 million by 2020, of which 49% are women. By 2035, the total population is expected to reach 57.8 million, with an average annual growth rate of 0.98%.

According to the State of the Region Report, in 2017 63.24% of the population were urban residents. In 2019, the regional average was 19 births per 1,000 inhabitants; infant mortality was 13 deaths per 1,000 live births.

ECLAC reports that the Central American population continues to be mostly young and still entering working life. However, the demographic profile varies among regional countries. For example, Guatemala and Honduras are in a phase of incipient aging, with relatively high levels of fertility (more than 2.8 children per woman), and an aging index where there are only 18 people above age 15 for every 100 children under 15. Nicaragua, Panama and El Salvador have fertility rates between 2.3 and 2.6 children per woman, and an aging index that ranges between 18 and 33 people above the age of 15 for every 100 children under 15: placing them in a moderate phase of aging. On the other hand, Costa Rica is in the moderately advanced aging category, with a fertility rate below replacement level (1.9 children per woman), and an aging index of 38 older people for every 100 under the age of 15.

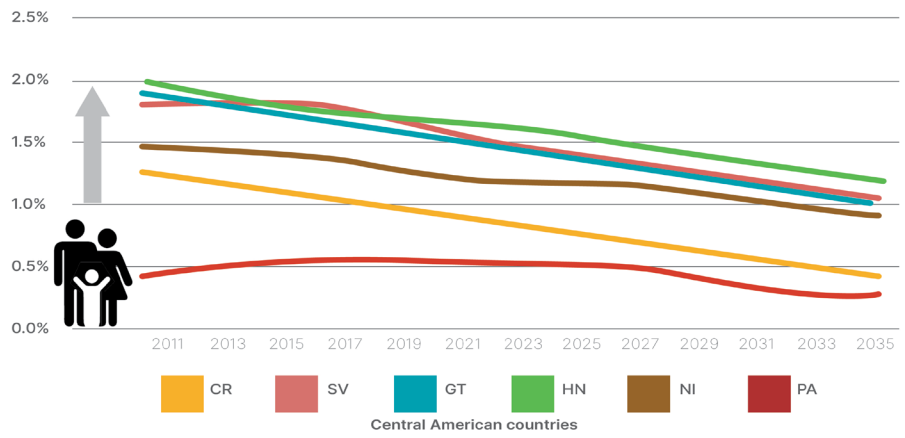
Graph 1: Population trends and projections (2011-2035) (millions of inhabitants).



2035	
Country	Millions of inhabitants
CR	5.60
SV	6.87
GT	20.22
HN	12.15
NI	7.74
PA	5.20

Source: JST, based on ECLAC databases

Graph 2: Population Growth Rates (2011-2035).

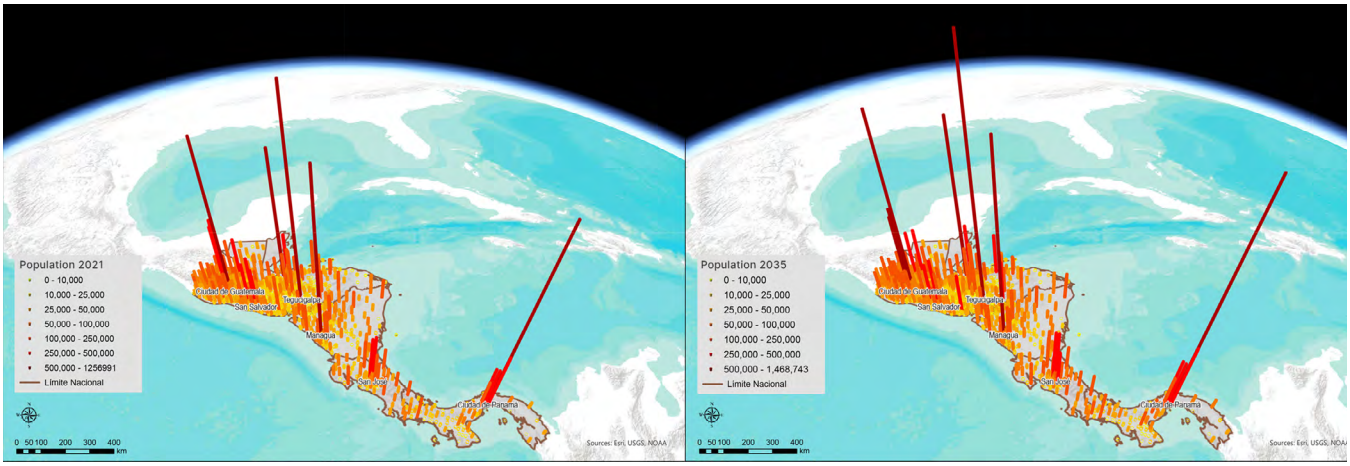


2035	
Country	%
CR	0.42%
SV	0.23%
GT	0.98%
HN	1.12%
NI	0.87%
PA	2.02%

Source: JST, based on ECLAC databases

The graphs below show comparative population distribution in 2021 and projections for 2035 that show that regional populations are concentrated in urban centers near the Pacific coast, a situation that continues over time.

Figure 2: Population distribution in Central America 2021 and 2035.

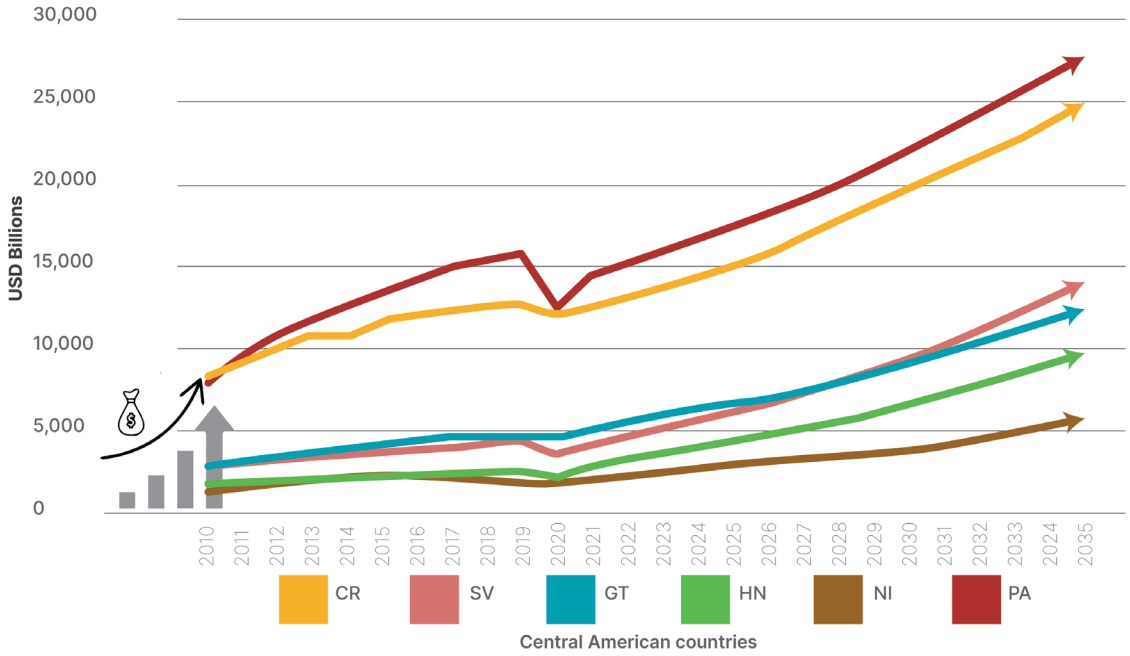


Source: JST.

2.1.2 Economic Development Framework

The Regional Master Plan is based on the proposed scenario of "equitable economic growth," which aims to reduce economic inequalities in terms of income per capita among the Central American countries by expanding highways on the Caribbean side (considered a less-developed region where economic activity could be improved); it also proposes the reactivation of the railway network throughout the region. As shown below, Panama has the highest GDP per capita in the region, followed by Costa Rica.

Graph 3: GDP per capita (USD per year, current exchange rate).



Source: JST, based on ECLAC databases

Although growth is expected in all regional countries as a result of investments proposed by the M/P, the equitable growth scenario presents a relatively higher growth rate for the three northern countries and Nicaragua with the purpose of reducing the gap with the neighbor countries to the south. As shown in the graph below, this proposal is in line with initial studies for this plan (ITR2).

Graph 4: GDP growth rate (% per year nominal rate).



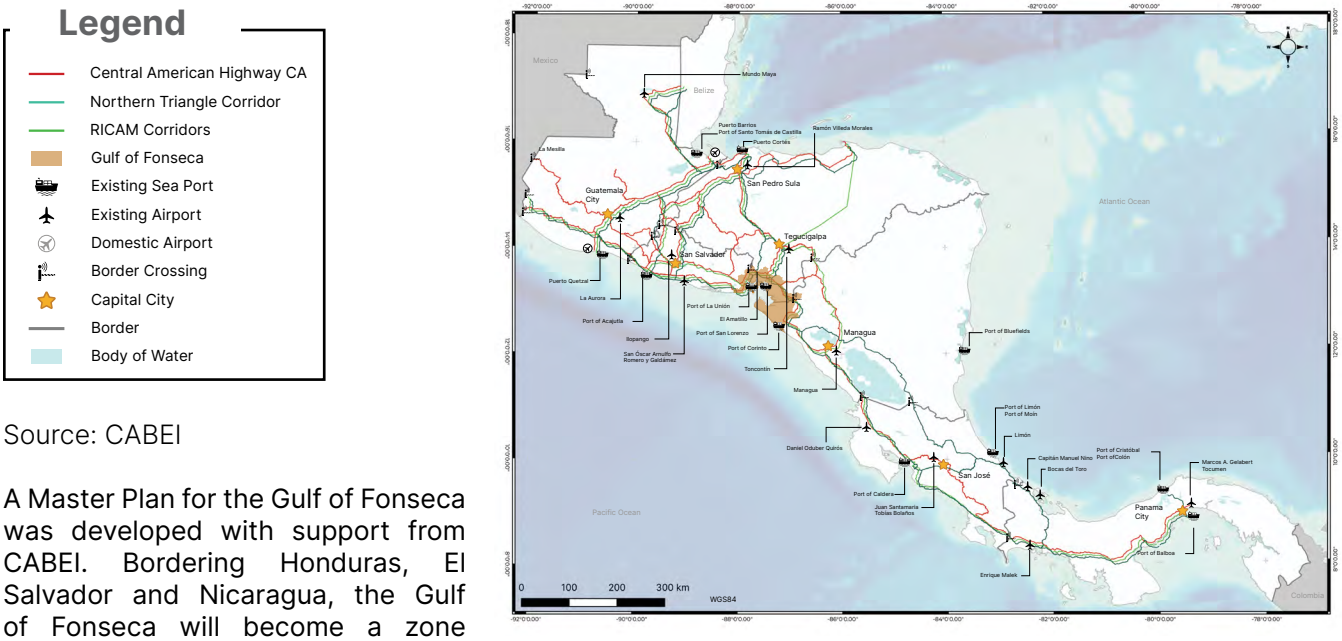
Source: JST, based on ECLAC databases.

2.2 Regional and National Policies on Spatial Development

2.2.1 Regional Development Corridors

Cross-border management in Central America has improved under the policies and strategies suggested by the Central American Strategy for Trade Facilitation & Competitiveness (ECFCC). A customs union was established between Guatemala and Honduras, which now also includes El Salvador, and is expected to include the rest of the Central American countries in the near future.

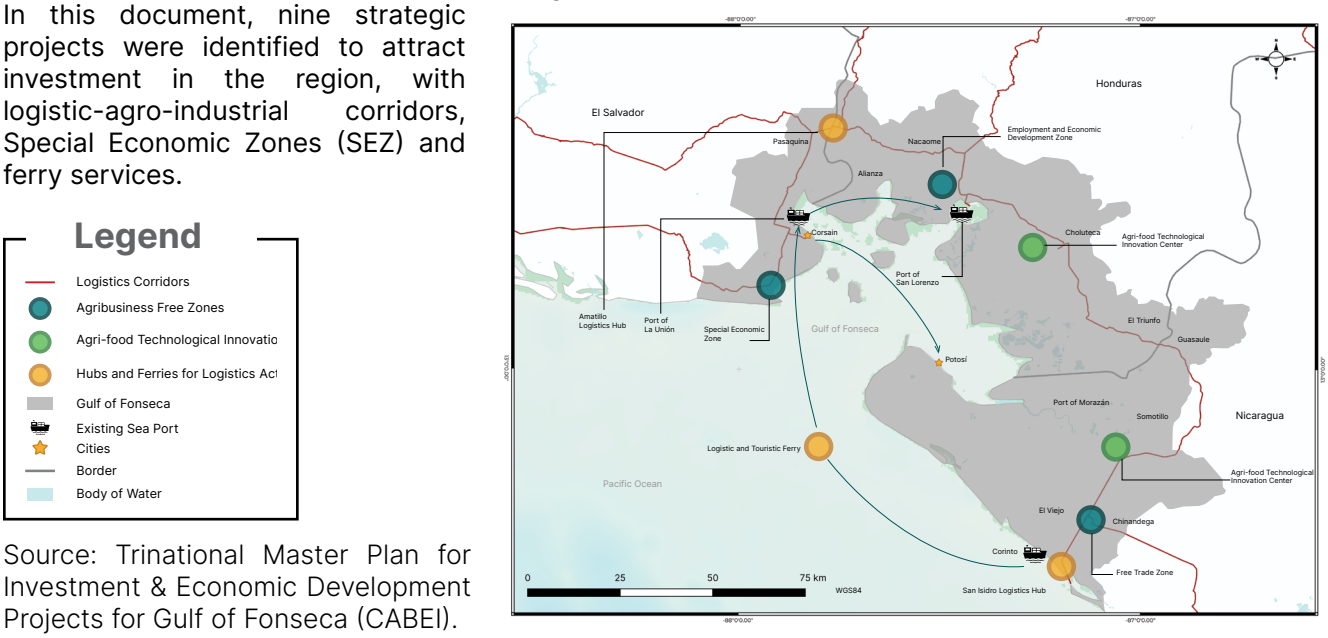
Map 2: Regional development corridors.



Source: CABEI

A Master Plan for the Gulf of Fonseca was developed with support from CABEI. Bordering Honduras, El Salvador and Nicaragua, the Gulf of Fonseca will become a zone of peace, security & sustainable development for the three countries. In this document, nine strategic projects were identified to attract investment in the region, with logistic-agro-industrial corridors, Special Economic Zones (SEZ) and ferry services.

Map 3: Master Plan for the Gulf of Fonseca.



Source: Trinational Master Plan for Investment & Economic Development Projects for Gulf of Fonseca (CABEI).

2.2.2 National Plan on Cargo Logistics, PNLOG/PENLOG

In each country, a National Plan on Cargo Logistics (PNLOG) was formulated with support from the IDB. The Regional Master Plan on Mobility & Logistics 2035 used these national transport plans as a reference.

Table 1: National transport and logistics plans.

Country	PNLOG/ PENGLOG planning horizon	Agency	National Transport and Logistics Plans
CR	2014-2024	INE/TSP	National Plan on Cargo Logistics (PNLOG:2014)
			National Transport Plan (PNT:2011)
SV	2018-2032	MOP	National Plan on Cargo Logistics (PNLOG 2018)
			Integrated mobility and logistics policy for productive and sustainable development trade facilitation (2017)
			Infrastructure Master Plan (2020)
GT	2015-2030	PRONACOM	Plan Estratégico Nacional de Logística de Carga (PENLOG 2016)
			Road Development Plan 2018-2032 of Guatemala. MCIV, PRONACOM
HN	2015-2030	SIT (INSEP)	National Plan on Cargo Logistics (PNLOG 2019)
NI	2015-2032	INE/TSP/CNI	National Plan on Cargo Logistics (PNLOG 2018)
			National Transport Plan (PNT 2014)
PA	2014-2024	Logistics Council	National Plan on Cargo Logistics (PNLOG 2014)
			National Logistics Strategy (2017)

Source: Summary by JST

2.2.3 Deep Integration Process for Guatemala - Honduras - El Salvador

Guatemala, El Salvador and Honduras make up the Northern Triangle of Central America sub-region. They have launched a deep integration process, known as the Customs Union, designed to create economic synergies among them. Success of this integration could lead the other three countries to join the initiative. The aim is to create conditions conducive to promoting sub-regional projects or a logistics connectivity strategy that could attract investment.

The Declaration of Corinto[1], indicates that this deep integration process leads to effective sub-regional integration in the northern countries of Central America with tools to face the current challenges of the world economy and to seek solutions to common problems in a joint and coordinated manner based on sustainable and inclusive economic and social development. The nations' presidents indicated that it is necessary to complement the current work to improve and strengthen the customs union of the three countries with an agenda that includes joint policies and actions on competitiveness, productive integration and connectivity, among other aspects.

To this end, the presidents instructed their administrations, with the support of SIECA and international agencies, to draft an agenda of joint actions on competitiveness, productive integration and connectivity of the countries of northern Central America.

1 Corinto Declaration, Summit of Presidents of El Salvador, Guatemala and Honduras; August 20, 2018. http://www.amchamhonduras.org/wp-content/uploads/2018/09/Declaracion-Corinto.pdf

ECLAC, in its publication, "Proposal for a common agenda of actions among the countries of the Northern Triangle in competitiveness, productive integration and connectivity[2], proposes connectivity projects such as:

1. Infrastructure and connectivity services
2. Development of logistics corridors
3. Short Sea Shipping
4. Biosafety in road freight transport and mobility of people
5. Strengthening e-commerce
6. Regional air transport

Its competitiveness agenda includes topics such as:

1. Promotion of regional hubs of increasing complexity
2. Promoting the development of regional value chains
3. Agriculture and agri-tech-business
4. Road freight transport industry
5. Regulatory improvement for business development

2.2.4 Comprehensive Development Plan for North Central America & Mexico to Address Structural Causes of Migration

This Master Plan used the national plans on cargo logistics (PNLOG) for each country as a reference. ECLAC has supported the formulation of the Comprehensive Development Plan for the North of Central America and Mexico to address the structural causes of migration[3].

It proposes to build a space for sustainable development between Mexico (nine states in the south-southeast), El Salvador, Guatemala, and Honduras. The initiative changes the dominant paradigm on migration, addressing the causes of irregular human mobility from a development and integration perspective. The program has political commitment from the four governments and is consistent with proposals from the United Nations system.

The initiative involves creating a space for sustainable development and a new economic region between these countries and the southeast of Mexico, which would: improve the well-being of the populations and allow migration to be an option rather than an obligation imposed by deprivation and shortages; promote initiatives to improve economic performance, attract investment, increase trade and income flow as well as decent and dignified jobs based on what the states and the UN system do on the ground. It also aims to promote sustainability and resilience to climate change, and comprehensive risk management to mitigate its incidence as a reason for migration. It advocates a comprehensive approach to the migration cycle – origin, transit, destination, return – fostering safe, orderly, and regular human mobility with a dignity & rights approach.

The plan has a website and PDI geoportal, an open-source geo-referenced platform hosted on the PDI website, with project proposals in several pillars. Below, a sample of economic development projects for the purpose of this M/P[4]:

2 https://www.cepal.org/es/publicaciones/46436-propuesta-agenda-acciones-comunes-paises-triangulo-norte-materia-competitividad
3 https://www.cepal.org/es/subtemas/plan-desarrollo-integral

4 https://repositorio.cepal.org/bitstream/handle/11362/47250/S2000527_es.pdf?sequence=1&isAllowed=y



1. Co-modal logistics corridors for integration and development
2. Pacific Plan of El Salvador
3. North-south railway connection in Guatemala, and proposal for rural roads
4. Logistics road infrastructure in Honduras
5. Development of the Isthmus of Tehuantepec: Mexico's interoceanic multimodal corridor
6. Reconstruction of interregional feeder roads in the State of Chiapas, Mexico
7. Modernization and expansion of Chiapas Port and other projects in the southeast of Mexico, such as: highways in Guerrero; Central Distribution Market, Oaxaca; new border post in Tabasco; industrial & logistics infrastructure in the same state; plus others in Veracruz, Yucatán, etc.

Other programs, such as a trade promotion and regional integration program, include the facilitation of trade between Mexico and northern Central America, and the deepening of trade and productive activities as a result of the customs union between these countries.

Productive development programs include strengthening rural and inter-country value chains, and improving logistics performance, competitiveness and regional economic integration in Honduras.

The spatial development program includes proposals such as the development of intermediate cities: Isthmus of Tehuantepec, Tapachula and the northern border of Guatemala; or the spatial development of the Trifinio in El Salvador, Surf City, as a holistic tourism development program in the marine coastal strip of El Salvador, etc.

The environmental sustainability, climate-change adaptation and disaster-risk reduction pillar includes initiatives such as strengthening of technical and institutional capacities for the generation of climate and geological data for disaster-risk forecasting and awareness, protection of national public investments through disaster-risk reduction, response to climate change, etc[5].

(1) Spatial structure of logistics nodes

The PNLOG/PENLOGs of Central America show the spatial structure of the region, where 27 main logistics nodes and 24 secondary logistics nodes were identified. These should be connected by a multimodal transport & services network, including main arterial roads, railways, maritime transport and civil aviation.

5 https://repositorio.cepal.org/bitstream/handle/11362/47250/S2000527_es.pdf?sequence=1&isAllowed=y

Table 2: List of main logistic nodes in the PNLOG/PENLOG.

		Municipality	Capital city	Department Capital	Population (1000)	Number of SEZ	International Airport	Domestic Airport	Port	Road Border
CR	1	San José	✓	✓	349		✓			
	2	Limón		✓	100	1	✓		✓	
	3	Esparza			38				✓	
	4	La Cruz			13					✓
SV	5	San Salvador	✓	✓	336					
	6	Santa Ana		✓	250	2				
	7	San Miguel		✓	215					
	8	Usulután		✓	71					
	9	Port of Acajutla			58				✓	
	10	Port of La Unión		✓	15	1			✓	
	11	San Luis Talpa			29		✓			
GT	12	Guatemala City	✓	✓	1,213	7	✓			
	13	Quetzaltenango		✓	204			✓		
	14	Puerto Barrios		✓	112	3		✓	✓	✓
HN	15	Tegucigalpa	✓	✓	1,166		✓			
	16	San Pedro Sula		✓	726	3	✓			
	17	Choloma			243	4				
	18	La Ceiba		✓	200		✓		✓	
	19	El Progreso			189	1				
	20	Comayagua		✓	154					
	21	Puerto Cortés			127				✓	
NI	22	Managua	✓	✓	1,049	11	✓			
	23	Matagalpa		✓	162					
	24	Port of Corinto			18				✓	
PA	25	Panama	✓	✓	1,206	15	✓		✓	
	26	Colón		✓	257	4			✓	
	27	David		✓	174		✓		✓	

Source: PNGLOG/PENLOG, summary by JST

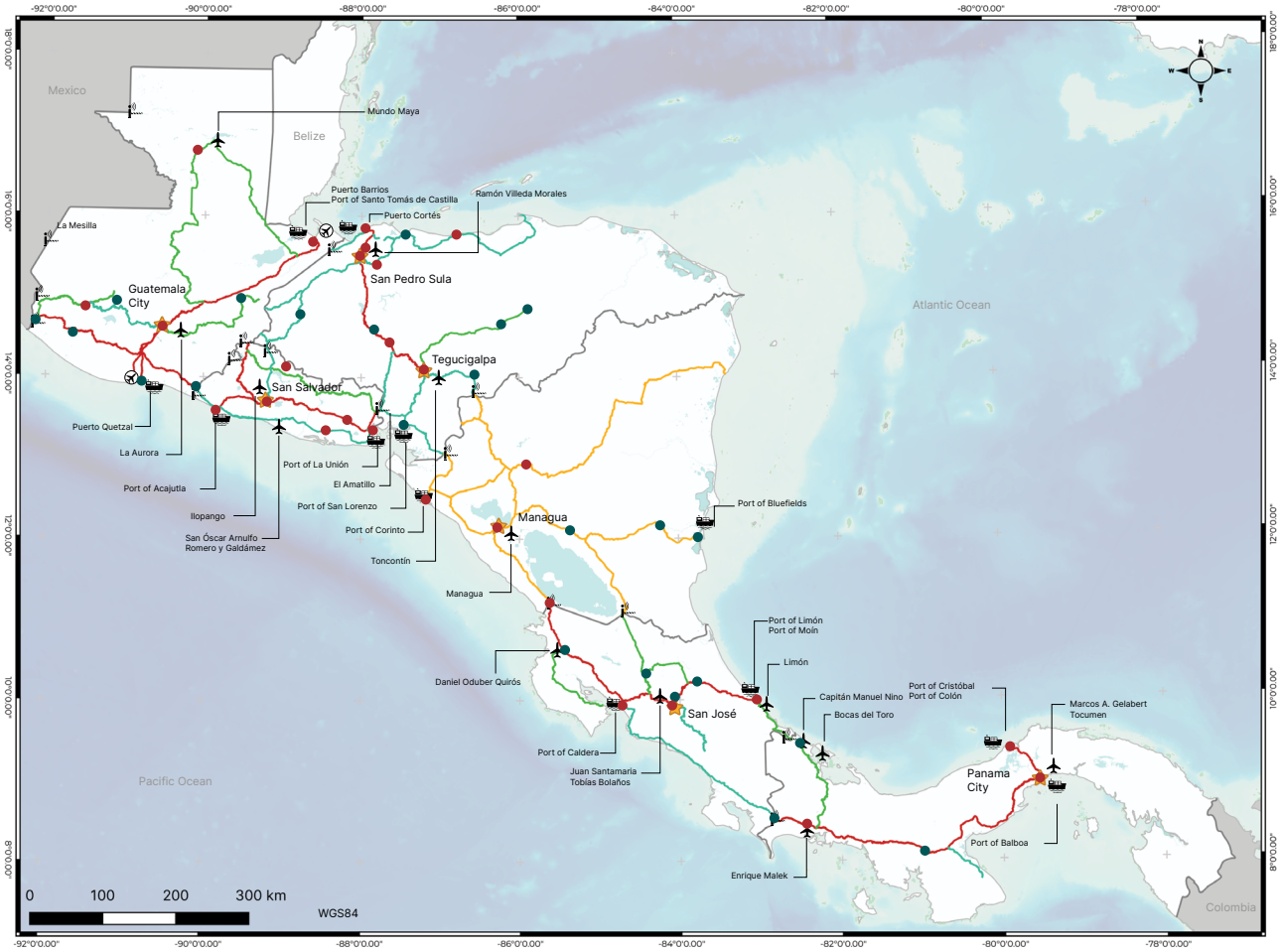


Table 3: List of secondary logistics nodes in PNLOG/PENLOG

Country	#	Municipality	Capital	Population (1000)	Number of SEZ	Internacional Airport	National Airport	Port	Road Border
CR	1	San Carlos		194					
	2	Pococí		146					
	3	Pérez Zeledón		143					
	4	Liberia	✓	74	1	✓			
	5	Corredores		51					✓
	6	San Francisco Menéndez		43					✓
GT	7	San José		63	1		✓	✓	
	8	Moyuta		40					✓
	9	Ayutla		37	2				✓
	10	Zacapa	✓	60					
	11	Retalhuleu	✓	91					
	12	Santo Tomás Chichicastenango		142					
SV	13	La Libertad		142					
HN	14	San Lorenzo		43				✓	
	15	Siguatepeque		99					
	16	Tela		101				✓	
	17	Santa Rosa de Copán	✓	64					
	18	Danlí		201					
NI	19	Puerto Cabezas (Bilwi)	✓	120			✓	✓	
	20	Juigalpa	✓	61					
	21	El Rama		58					
	22	Bluefields	✓	57			✓	✓	
PA	23	Changuinola		98		✓			✓
	24	Santiago	✓	98					

Source: Selected PNLOG/PENLOG cities in each country, summary by JST

Map 4: Functional structures in the PNLOG/PENLOG.



Source: PNLOG/PENLOG, mapping by JST

Legend

- National Structuring Axis
- Consolidated Logistics Corridors
- Logistics Corridors to be consolidated
- Prioritized Logistics Corridors (NI Only)
- Main Logistics Nodes
- Secondary Logistics Nodes
- Sea Port
- Airport
- Domestic Airport
- Border Crossing
- Capital City
- Border
- Body of Water

(2) Spatial structure for priority logistics hubs and corridors

The action plans in the PNLOG/PENLOG represent proposals for priority hubs and corridors. Most logistics hubs are in capital cities. Additionally, cities with special functions, such as border cities and cities with an airport or port, are also identified as logistics hubs.



Table 4: List of logistic functional hubs in PNLOG/PENLOG.

Logistics hubs	Main cities	Population (1000)	International airport	Domestic airport	Port	Land border
Guatemala Metropolitan Area	Guatemala City, Mixco, Amatitlán, Villa Nueva	3,557	✓			
Puerto Quetzal / Pedro de Alvarado border	San José, Moyuta	278		✓	✓	✓
Quetzaltenango / Tecún Umán border	Quetzaltenango, Malacatán, Ayutla	392		✓		✓✓
Puerto Barrios / Puerto Santo Tomas de Castilla	Puerto Barrios	101		✓	✓✓	✓
Zacapa / El Florido border	Zacapa, Camotán, Esquipulas, Concepción Las Minas	276				✓✓✓
San Salvador Metropolitan Area	San Salvador, Ilopango	2,298	✓			
La Hachadura border	Ahuachapán, San Francisco Menéndez	183				✓✓
Port of Acajutla	Acajutla	72			✓	
El Poy border	Metapán, Citalá	5				✓✓
Port of La Union / El Amatillo border	La Unión, Pasaquina	76			✓	✓
Port Santo Tomas de Castilla	Trujillo	65			✓	✓
La Ceiba	La Ceiba	200	✓		✓	
North zone, Honduras	San Pedro Sula, Choloma, Puerto Cortés, El Progreso	1,251	✓		✓	
Western zone, Honduras	Ocotepeque, Santa Fe	46				✓✓
Pacific zone, Honduras	Amapala, San Lorenzo	87			✓	✓✓✓
North-south zone, Honduras	Comayagua, Siguatepeque, Tegucigalpa	1,511	✓			
Central zone, Nicaragua	San Lucas, Matagalpa	543				✓
Pacific zone, Nicaragua	Somotillo, Corinto, Managua	2,103	✓		✓	✓
South Caribbean, Nicaragua	El Rama, Bluefields	194		✓	✓	
North Caribbean, Nicaragua	Puerto Cabezas (Bilwi)	120		✓	✓	
Southern zone, Costa Rica	Cárdenas, San Carlos	64				✓✓
San José Metropolitan Area	San José	1,892	✓			
Las Tablillas border	Los Chiles	32				✓
Liberia/Peñas Blancas border	Liberia, La Cruz	100	✓			✓
Port of Caldera	Esparza	37			✓	
Port of Limón	Limón	15	✓		✓	
Panama City / Colon	Colón, Panamá	1,649	✓✓		✓✓✓	
David / Paso Canoas border	Bugaba, David	283	✓		✓	✓
Sixaola border	Changuinola	98	✓			✓

Source: Hubs identified in PNLOGs /PENLOGs, summarized by JST

2.3 Sustainable Environmental Framework

The Sustainable Development Goals (SDGs) were incorporated into the Strategic Environmental Assessment (SEA) implementation framework of this M/P. The SEA framework will seek to ensure that proposed policies are consistent with sustainable development and that their implementation contributes to building a sustainable society.

The PMRML should be considered as the preliminary strategy to be followed in formulating the policies of this M/P; the general guidelines presented are critical to the establishment of the SEA framework.

2.3.1 Suitability for Development Analysis Method

The SEA framework is a planning and decision-making support tool used to ensure that all policies, plans and projects proposed are consistent with the SDG principles. It addresses natural-resource protection, disaster-risk reduction, and climate-change adaptation.

A Geographic Information System (GIS) has been used to carry out spatial-development aspects of the SEA, including:

- Environmental vulnerability (conservation/protection areas, water bodies, forests, World Heritage Sites, Indigenous Peoples' lands, etc.)
- Disaster risks (tropical storms, floods, earthquakes, landslides, etc.)
- Socio-economic information (urban agglomerations, population distribution, industrial areas, etc.)
- Transport infrastructure (ports, airports, railways and highways)

The comprehensive spatial information (development suitability assessment map) indicating suitable areas and corridors for development, was created by consolidating spatial information indicating environmental vulnerability and natural disaster risk.

2.3.2 Result of Development Suitability Analysis

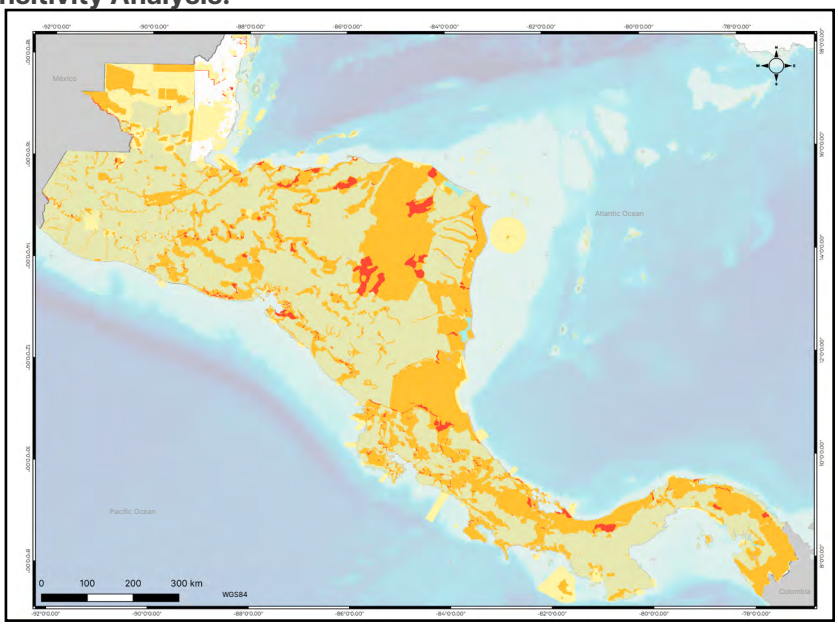
Environmentally sensitive areas

Areas in red on Map 5 show highly sensitive areas where transport infrastructure projects are not recommended. Areas in orange indicate sensitive areas where careful consideration and mitigation measures are required in planning transport infrastructure projects. Areas in yellow and green indicate areas where transport infrastructure projects can be developed, however, careful consideration of environmental impact is needed at the planning stage.

Map 5: Results of the Environmental Sensitivity Analysis.

Environmental sensitivity level
1. Very low sensitivity
2. Low sensitivity
3. Sensitive area
4. Highly sensitive area

Source: JST



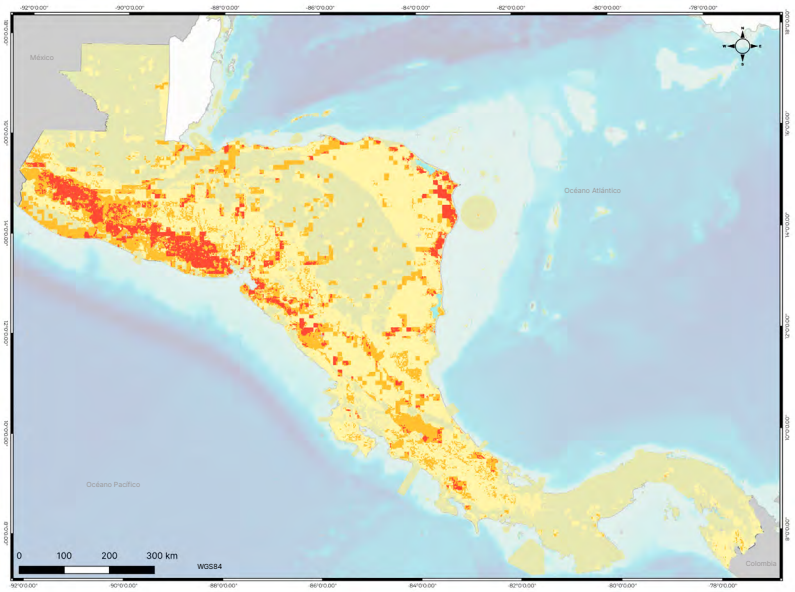
Natural disaster risk areas

Just as in the environmental sensitivity analysis, Map 6 indicates areas suitable for transport infrastructure projects from a disaster risk perspective. For example, the Atlantic coast in Honduras and Nicaragua are classified as coast high-risk areas, mainly due to hazards from tropical storms. On the Pacific Ocean side, the coastal zones of Guatemala and El Salvador are classified as high risk due to seismic and volcanic activity.

Map 6: Results of disaster risk analysis caused by natural phenomena.

Natural Disaster Risk Level
1. Very low
2. Low
3. Moderate
4. High

Source: JST.

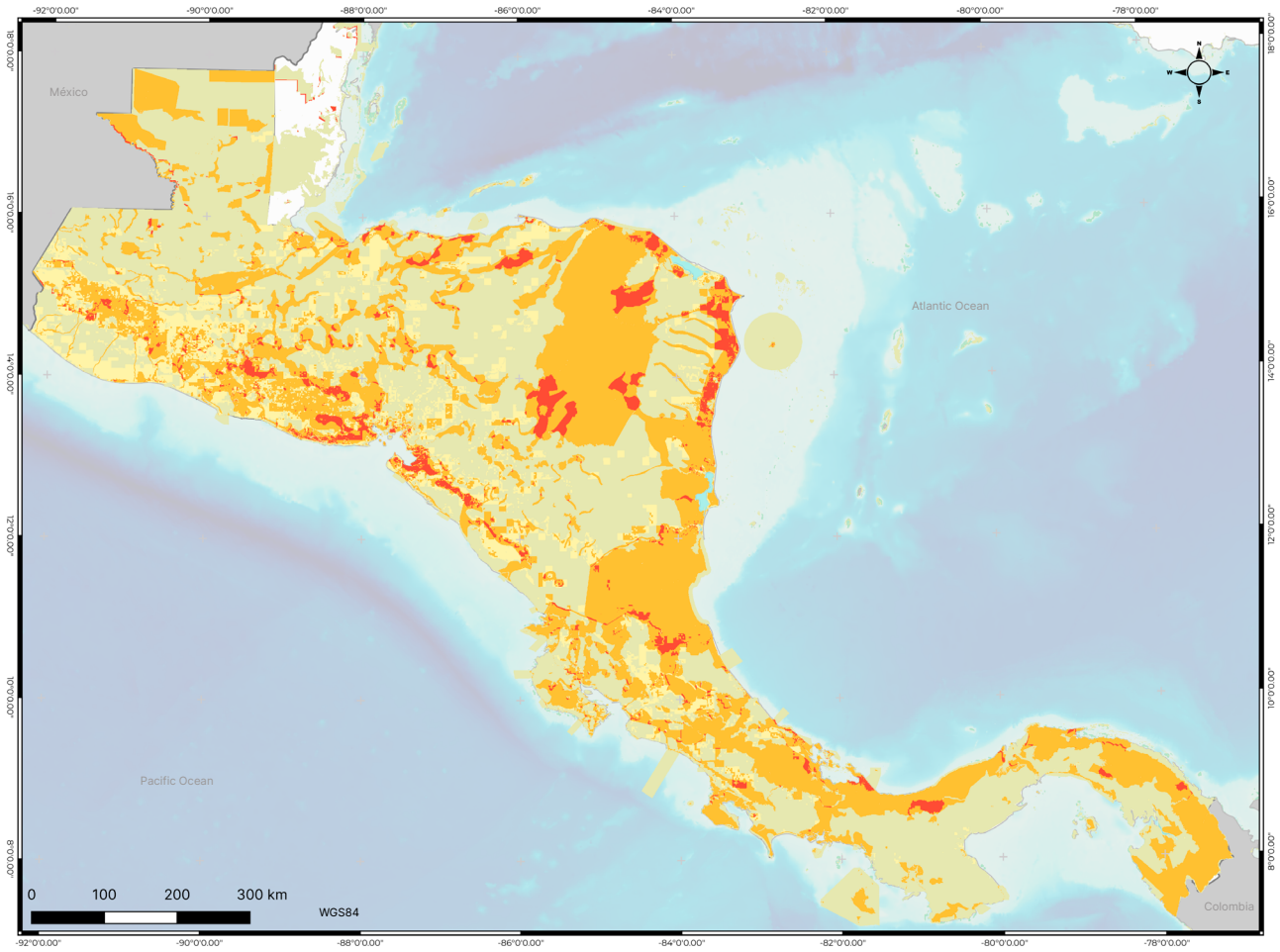


Suitability for transport infrastructure development is assessed by integrating environmental sensitivity and natural disaster risk analyses.

Suitability for development is categorized into four categories:

- Highly unsuitable for development (red)
- Unsuitable for development (orange)
- Area to be developed considering appropriate mitigation measures (yellow).
- Suitable for development with careful consideration (gray).

Map 7: Development suitability result.



Source: JST.

Development suitability level
1. Suitable for development
2. Developable with appropriate measures
3. Inadequate development
4. Highly unsuitable for development

2.4 Intra-Regional Legal Framework

To promote regional development and improve living conditions of their inhabitants, the Central American governments have signed multiple treaties, agreements, conventions and binding resolutions to expedite the integration of their economies, consolidate results to date and create the basis for future governance of the region.

Signatories are expected to promote sectoral legislation included in a single legal framework, with special attention to creating an appropriate institutional environment, information generation and dissemination, and strengthening of regulations related to mobility, logistics and international transport.

2.4.1 Legal Instruments of Economic Integration

Table 5: Relevant aspects of the main treaties.

Protocol of Tegucigalpa	SIECA General Treaty	Protocol of Guatemala
Signed December 13, 1991 Creates the Central American Integration System (SICA) Member States Supreme body: Presidents' meeting Purposes and principles	Signed December 13,1960, Common Market (5 years) Commitment of the countries: * Perfecting FTZ * Central American Tariff Unification * Customs Union Grants free circulation of originating goods Annex A: Exceptions to free trade (coffee and sugar) Annex B: Customs Form (FAUCA)	Signed October 29, 1993 Objective: Central American Economic Union Defines SIECA statutes Institutional Functioning of the Central American Economic Integration Subsystem

Source: Presentation, legal and institutional instruments, September 2018, SIECA

(1) Main multilateral instruments

1. The Protocol of Tegucigalpa (December 13, 1991) signed by the presidents of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, and later signed by Belize in 2000, created the Central American Integration System (SICA). The signing of this protocol reformed the Charter of the Organization of Central American States (ODECA) of 1962, and created the new vision of Central America as a region of peace, freedom, democracy and development.
2. The General Treaty on Central American Economic Integration (December 13, 1960) signed in Managua, Nicaragua, created the Central American Common Market (CACM). The Protocol to the General Treaty on Central American Economic Integration (Protocol of Guatemala) was signed on October 29, 1993, in which the parties committed to achieve, in a voluntary, gradual, complementary and progressive manner, the Central American Economic Union. There is an emphasis on Article 28, for the purposes of the M/P, stating that member states shall promote the development of physical infrastructure and services in the transport sector to increase the efficiency and competitiveness of the productive sector, at the national, regional and international levels. Also, they agreed to harmonize policies for services in the infrastructure sector in order to eliminate existing dispersions, particularly in the tariffs area, which affect the competitiveness of companies in the region. However, the states will maintain the freedom of transit through their territories, for goods and for freight vehicles.
3. The Multilateral Treaty on Central American Free Trade and Economic Integration aims to facilitate and expand trade among Central American countries, and it represented a decisive step towards the future creation of a Central American customs union. It was formally initiated and developed in 1952 by the governments of Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica.
4. The Economic Association Treaty was signed by the presidents of Guatemala, El Salvador and Honduras on January 9, 1960, to promote economic development of their countries. To improve living conditions of their inhabitants; due to the need to consolidate and expand the existing economic cooperation between the three countries and thus contribute to Central American economic integration.
5. Central American Uniform Customs Code (CAUCA) and its Regulations (RECAUCA).

(2) Complementary Instruments

1. The Enabling Protocol for Deep Integration Process Towards the Free Transit of Goods & Naturalized Persons between Guatemala and Honduras is currently in consolidation, adhering and implementing in El Salvador.
2. Central American Free Mobility Agreement (CA-4) was created by Presidential Agreement signed by the presidents of El Salvador, Guatemala, Honduras and Nicaragua, to allow intra-regional transit of nationals between these countries, without passports and with expedited migratory instruments.
3. The Central American Tariff and Customs Regime between the governments of Costa Rica, El Salvador, Guatemala and Nicaragua in June 1997 was created to readjust and orient the process of economic integration, to turn it into an authentic instrument for regional economic development.
4. The Treaty on Investment and Trade in Services between the governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua on March 24, 2002, was signed to promote a large and safer market for investments and the exchange of services in their territories, as well as to increase the competitiveness of the services sector, to facilitate trade and the flow of capital and technologies, contributing to consolidate the systematic competitiveness of the region.
5. The Internal Taxes Compatibility Convention (Honduras and Guatemala) was originally signed between the governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua in Punta Cana, Dominican Republic, on June 30, 2006.

6. The Regional Agreement for Temporary Imports of Vehicles by Road, signed by the countries in El Salvador in 1956.
7. The Central American Agreement of Road Circulation was signed in Honduras on June 10, 1958, updated in 2000, and again in 2014. This last version was approved by COMITRAN, in its XXXIII meeting held at Managua, Nicaragua, in August 2014.
8. The Agreement on Application of Article VII (or customs value) is based on the positive notion of value and the application of the paid or payable price to determine the customs value of goods; it entered in force in 1994.
9. Central American Agreement on Uniform Road Signs, Resolution approved on June 8, 1958 by the Committee for Economic Cooperation of the Central American Isthmus.
10. The Multilateral Treaty of Free Trade and Central American Economic Integration, June 10, 1958, aimed to facilitate and expand trade among the Central American countries. It represented a decisive step toward the future creation of a Central American Customs Union. This treaty was signed by the governments of Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica, aiming to strengthen relations and fraternal friendship that happily unite the five countries with the purpose of progressively integrating their economies, to ensure the expansion of their markets, promote the production and exchange of goods and services, raise standards of living and employment of their respective populations, and to contribute, in this way, in the re-establishment of the economic unity of Central America.
11. Economic Partnership Treaty (Tripartite Treaty) signed on June 2, 1960, in Guatemala City.

(3) Support tools

Table 6: Administrative Acts.

Resolutions	Mandatory acts, whereby decisions are adopted on issues related to the operation of the bodies and the follow-up of economic integration institutional policies
Regulations	Of a general and mandatory nature, directly applicable to all member States. Must be consulted with the Advisory Committee.
Agreement	Specific or individual nature and shall be mandatory for their recipients.
Recommendations	These guidelines will only be binding in terms of their objectives and principles, and will serve to prepare the issuance of Resolutions, Regulations, or Agreements.

Source: Presentation, Legal and Institutional Instruments, September 2018, SIECA.

a) Trade and customs facilitation instruments

- Agreement No. 01-2015 (COMIECO). Approval of the Central American Strategy for Trade Facilitation.
- Agreement No. 02-2019 (COMIECO). Approval of RFID Platform Technical Guide, User's Manual and Enrolment Plan.
- Agreement No. 1-2011 (COMIECO). Approves the Procedure for the Review, Analysis, and Solution of Non-Tariff Barriers to Intra-Regional Trade in Central America.
- Agreement No. 2-2009 (COMIECO). Approve the Administration Mechanism of the Central American Integrated Computerized Tariff (AIC).
- Agreement No. 1-2006 (COMIECO). Approval of the Central American Uniform Customs Code.
- Agreement No. 1-2007 (COMIECO). Approval of the Protocol to the Treaty on Investment and Trade of Services.
- Resolution No. 1-2015 COMIECO-COSEFIN. Mechanism for the Reimbursement of Tariff Duties.
- Regulations of the Central American Uniform Customs Code (RECAUCA).
- Central American Regulations on Customs Valuation of Goods.
- Regulations for the Organization and Functioning of the Sectorial and Inter-sectorial Councils of Ministers of Economic Integration.
- Central American Regulations on the Origin of Goods, and Annex of Rules of Origin.

b) Transport sector instruments for international transit

- Resolution No. 61-2000 COMIECO-XV. Regulation on the International Road Customs Transit Regime. September 27, 2000. Modifications to Resolution No. 65-2001 (Panama included).
- Resolution No. 64-1998 COMRIEDRE. Establish a mechanism for reciprocal and non-discriminatory treatment for cargo transport.
- Resolution No. 65-2001 COMRIEDRE. established a mechanism of reciprocal treatment with Panama.
- Resolution No. 66-2013 COMRIEDRE. Modification of Regulation on the International Road Customs Transit Regime, item j) Art. 4.

2.4.2 Port-Maritime Axis



(1) Basic port laws in each country

In Central America, only El Salvador, Honduras, Nicaragua and Panama have introduced legislation on general port matters.

El Salvador has the Port Maritime Law from 2002, which defines maritime and port matters. Honduras has the Organic Law of the National Port Company dated 1965, which stipulates the establishment of port companies with jurisdiction over the country's ports. Nicaragua enacted the General Ports Law in 2013, which defines general port matters, as the establishment of port companies with jurisdiction over the entire country. Finally, Panama issued the Decree Law in 1998 creating the Panama Maritime Authority. In Guatemala and Costa Rica, efforts are in progress to develop legislation to regulate aspects related to the national port system. However, there are laws related to the establishment of maritime regulatory agencies.

Table 7: Basic port laws

Country	Laws
Costa Rica	Law of the Costa Rican Institute of Pacific Ports.
	Organic Law of JAPDEVA.
	Regulatory Law of the Port Activity at the Pacific Coast.
El Salvador	General - Maritime Law.
Guatemala	Organic Law of the Santo Tomás de Castilla National Port Company.
	Organic Law of Quetzal Port Company.
Honduras	Organic Law of the National Port Company.
Nicaragua	General Law of Ports of Nicaragua.
Panamá	Decree Law creating the Panama Maritime Authority.

Source: JST

(2) Maritime administration

The basis for maritime administration in Central America is stipulated in the maritime port laws, including those from the establishment of independent agencies having jurisdiction over maritime affairs, as well as the organic laws of the various competent government ministries and agencies.

Table 8: Maritime administration laws and regulations

Country	Laws / regulations
Costa Rica	Law-3155 that creates the Ministry of Public Works and Transport.
El Salvador	General Maritime and Port Law.
Guatemala	Even though it lacks a framework law, several rules and regulations apply for its regulations and standards. Governmental Agreement 10.3.1972, 520-99 787-2016 creating the Port Commission. Ministry of Communications, Infrastructure and Housing. Decree 114-97, creation of the Vice Ministry of the Navy and the General Directorate of Port Captaincy from the Ministry of National Defense (Government Agreement 130-2016 and 65-2017). Maritime Strategy of the Ministry of National Defense. Regulations to administratively sanction non-compliance to international maritime instruments. In addition, several laws specific to each role, and specific regulations of Migration and Customs apply. The Ministry of the Interior with the Anti-Narcotics Police Coordination (SGAIA), Port Captaincy, and Coast Guard; as well as the regulations of the Ministries of Labor, Environment, Economy, and Finance, and OIRSA, among others.
Honduras	Organic Law of the National Merchant Marine.
Nicaragua	General Law of Ports of Nicaragua.
Panamá	Decree Law creating the Panama Maritime Authority.

Source: JST

(3) IMO conventions

The IMO (International Maritime Organization) was established in 1958 as a United Nations specialized institution with the purpose of promoting international cooperation in maritime affairs, such as vessel safety and prevention of pollution from vessels. A total of 171 countries/regions have officially joined, and three regions have become associate members, including the six Central American countries.

There are three important conventions: the International Convention for the Safety of Life at Sea (SOLAS); the International Convention for Prevention of Pollution from Vessels (MARPOL 73/78); and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). In addition, the Convention on Facilitation of International Maritime Traffic (FAL), 1965, is closely related to logistics. It is essential to highlight the importance of all the countries in the region having ratified the international IMO conventions, as this would position Central America at the forefront of maritime trade facilitation and protection of the marine environment, as well as the port-maritime operations, which could provide certain advantages at the international level to improve competitiveness and conservation of natural resources. The ratification status of these agreements is shown in the table below, by country.

Table 9: Ratification Status of Agreements.

As of 22/03/2023	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panamá
Convention 48, IMO	✓	✓	✓	✓	✓	✓
Convention 74, SOLAS	✓		✓	✓	✓	✓
Protocol 78, SOLAS	✓			✓		✓
Protocol 88, SOLAS	✓		✓	✓	✓	✓
Agreement 96, SOLAS						
Convention 78, STCW	✓	✓	✓	✓	✓	✓
MARPOL 73/78 (Annex I/II)		✓	✓	✓	✓	✓
MARPOL 73/78 (Annex III)		✓	✓	✓	✓	✓
MARPOL 73/78 (Annex IV)		✓	✓	✓	✓	✓
MARPOL 73/78 (Annex V)		✓	✓	✓	✓	✓
Protocol 97, MARPOL (Annex VI)			✓	✓		✓
Agreement 65, FAL	✓	✓		✓	✓	✓

Source: IMO
(https://wwwcdn.imo.org/localresources/en/About/Conventions/StatusOfConventions/x- Status.pdf)

(4) FAL agreement

The FAL Convention contains standards, recommended practices and rules to simplify processes, documentation and procedures for arrival, demurrage and advance electronic cargo information for the purpose of assessing customs risk on vessels engaged in international maritime transport.

The Convention states that authorities may request 12 documents from a vessel; under the FAL Committee, IMO has developed standardized FAL documentation with only seven forms. On January 1, 2018, the updated forms entered into force. Two additional forms may be required by The Universal Postal Union and the International Health Regulations. In addition, three declarations became effective on January 1, 2018:

- Safety-related information as required by SOLAS regulation, XI-2/9.2.2.2
- Advance electronic cargo information for customs risk assessment purposes
- Advance Notification of Waste Delivery to Port Receiving Facility Form

2.4.3 Aeronautical-Airport Axis

Unlike trade agreements, each Central American country has separate international aviation agreements.

(1) Costa Rica

Does not have an open skies agreement with any other Central American country but does have agreements with the U.S., Chile, Colombia and Canada. Passengers from the U.S. represent 90% of total traffic.

(2) El Salvador

Does not have an open skies agreement with any other Central American country.

(3) Guatemala

Does not have an open skies agreement with any other Central American country, but does have bilateral agreements with El Salvador and Honduras, whereby cross-border flights operate as local or domestic (e.g., flights from La Aurora International Airport to Roatan Island International Airport in Honduras).

(4) Honduras

Does not have an open skies agreement with any other Central American country, but does have bilateral air transport agreements with Canada and Mexico. In 2006, a cooperation agreement for the facilitation and development of air operations was signed by Guatemala, Honduras, El Salvador and Nicaragua.

(5) Nicaragua

Recently signed open skies agreements with the U.S. and with Spain, which includes access to the European Union. Nicaragua also has open skies agreements with Cuba, Peru and Panama. Nicaragua and Panama being the only countries in the region with such an agreement. Bilateral air transport agreements have also been signed with Qatar, Kuwait, United Arab Emirates, Mexico and Canada, plus a memorandum of understanding with Turkey.

(6) Panama

Has no open skies agreement with other Central American countries, except for Nicaragua. But has an open skies agreement with the U.S. and bilateral air transport agreements with Chile, Qatar and others.

(7) Regional regulations

All countries in the region are part of the Multilateral Agreement of the Latin American Aviation Commission (CLAC) and at the regional level there are open skies agreements: The Establishing Agreement for the Mundo Maya Organization, formed by Mexico, Belize, Guatemala, El Salvador and Honduras signed in Guatemala, August 14, 1992 and modified in Campeche, Mexico on November 13, 1992.

On July 1, 2022, the Ministers of Tourism of the Mundo Maya Organization met in Honduras and signed an "update" of the Convention. The main purpose of this meeting was to try to open the skies and facilitate the traffic of people and their goods in the region, as proposed in the "Air Policies Forum" held on June 16, 2022, so that ministers sign an agreement allowing airlines to fly as domestic airlines.

The Cooperation Agreement for Facilitation and Development of Air Operations was signed on October 3, 2006, by Guatemala, Honduras, El Salvador and Nicaragua. It constitutes a fundamental instrument for the bilateral or multilateral agreements on air transport to be subscribed between the parties, considering that the provisions of the bilateral or multilateral agreements shall prevail over the provisions of this agreement.

Resolution of the Customs Union Ministerial Instance No. 56-2019, of March 15, 2019, which modifies by total substitution the Regulation for the development of air and airport operations between the governments of Guatemala and Honduras, by Resolution of Ministerial Instance UA No. 08-2016. Through Resolution No. 56-2019, the Republic of El Salvador is incorporated into said Regulation.



Honduras. Airport.

2.4.4 Railway Axis

(1) Railway legislation

At the end of the 20th century most railways in the region ceased to operate. Now, only three countries operate freight and passenger trains: Costa Rica (168.5 km of operational tracks), Honduras (12 km) and Panama (76 km). Except for Nicaragua, all countries have railway laws; however, since there are no cross-border railways, there are no technical railway standards or bilateral agreements.

Table 10: Railway laws and technical standards

Item	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panamá
Railway operator	INCOFER	FENADESAL	FEGUA, Ferrovías	FNH	N/A	PCRC
Regulatory Agency	MOPT	CEPA	MCIV	INSEP	MTI (formerly)	AMP
Corresponding law	Law 7001, Sep. 1985	Legislative Decree No. 269, May of 1975	Organic Law of the Guatemalan Railway Company	Constitutional Law of National Railways (Decree 48, 1958)	Law of the Nicaraguan Railway Company (Law Decree No.710), 1981.	Contract Law 15 of the February 17th of 1998
Number of personnel	55	16	11 (FEGUA)	23	N/A	185
Length of track*	537 km (168.5 km)	471.0 km (N/A)	780 km (N/A)	199 km (12 km)	N/A	76 km
Technical standards	AREMA	N/A	AREMA	N/A	N/A	FRA
Track width	1,067 mm	914 mm	914 mm	1,067 mm	N/A	1,435 mm
Status	Freight and passenger trains are in operation	The railway is not in operation	The railway is not in operation	Passenger trains are in operation	There is no railway	Cargo and passenger trains are in operation

Note: *: The length of the track in operation is shown in parentheses.
FEGUA: Railways of Guatemala| FNH: National Railway of Honduras| INCOFER: Costa Rican Railway Institute| PCRC: Panama Canal Railway Company | AREMA: The American Railway Engineering and Maintenance of Way Association | FRA: Federal Railway Administration, US.

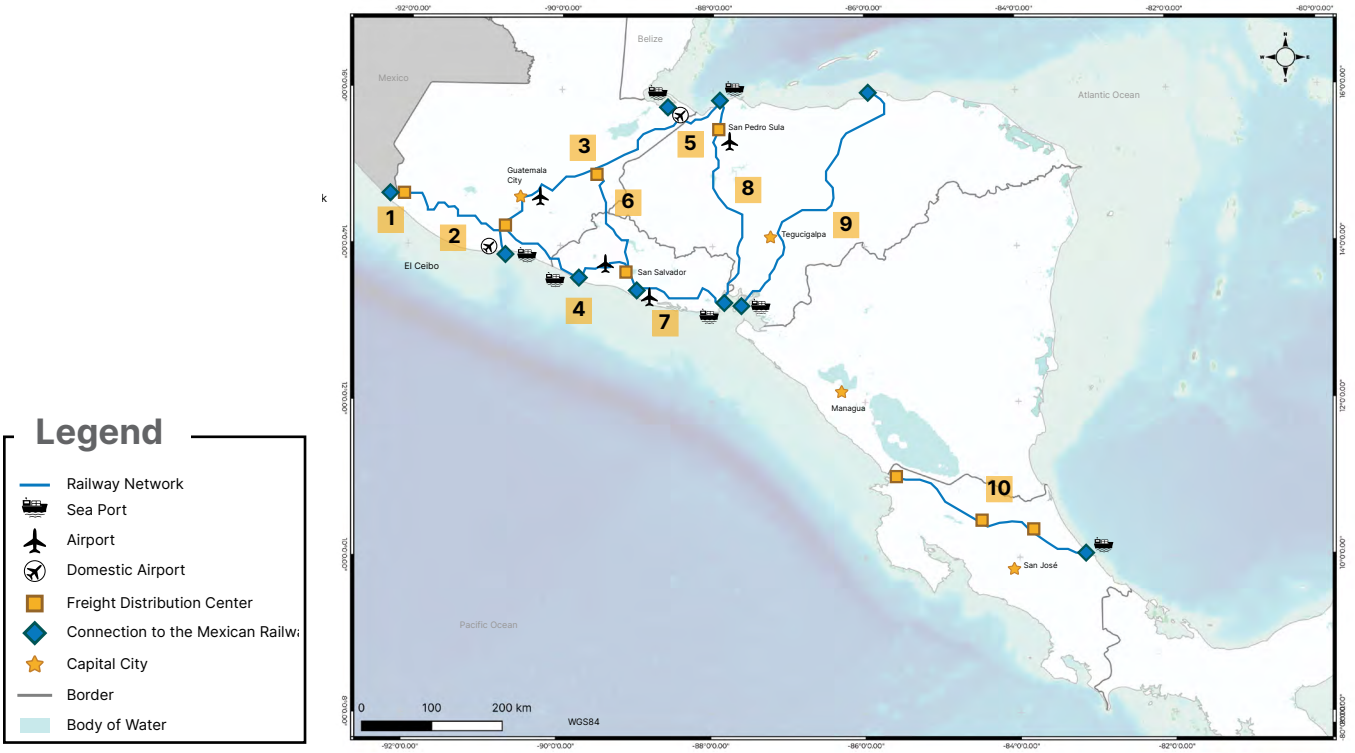
Source: JST

(2) Regional railway studies and legislation

The IDB conducted a rail study on linking several Central American countries (rail network using existing rights-of-way in each country plus new routes). Agreements on technical standards and international rail laws will be needed to allow such a network to operate on a cross-border basis.

In 2022, the Central American Bank for Economic Integration and the Secretariat for Central American Economic Integration presented the main findings of the Regulation on Standardized Railway Technical Specifications in Central America.

Map 8: Railways studied as part of the Mesoamerican Integration Projects



Source: RICAM, Northern Triangle and JST

Table 11: Routes of main railway projects identified in IDB study

No	Country	Route
1	GT - MX	Tecún Umán Intermodal Terminal and its connection to Mexico
2	GT	Tecún Umán - Santa María - Escuintla
3	GT	Puerto Quetzal - Guatemala City - Port of Santo Tomás de Castilla - Puerto Barrios
4	GT - SV	Escuintla / Santa María – Port of Acajutla - San Salvador
5	GT - HN	Entre Ríos - Puerto Cortés - San Pedro Sula
6	GT -SV	Zacapa - Anguiatú border - San Salvador
7	SV	Port of La Unión - San Óscar Arnulfo Romero y Galdámez Airport - San Salvador
8	SV - HN	Port of La Unión - San Pedro Sula - Puerto Cortés
9	HN	Port of Amapala - Por of Castilla (Trujillo)
10	CR	La Cruz – Muelle de San Carlos Pier – Port of Limón

Note: Numbers in the left column refer to those in the previous map.
Source: JST (Based on IDB, Current Situation of Railway Systems, Mesoamerican Integration Projects, 2014)

2.4.5 Road Infrastructure and Land Transport Axis

(1) Central American Highways (CA)

Each of the six countries classifies roads by function: primary, secondary and tertiary roads or equivalent, according to international best practices and in accordance with World Bank functional classifications.

Primary roads are those that constitute the primary network and are located outside urban areas. They connect capital cities with key regional centers and other points such as borders or ports. The Central American Highways are in this classification.

(2) Road design and maintenance standards

In 2011 SIECA published the Central American Manual of Standards the Geometric Design of Highways with a Risk Management and Road Safety Approach, which provides technical standards for the geometric design of regional highways, contributing to improving road safety and reducing vulnerability to disasters. The manual is in the process of being updated with the incorporation of climate-change adaptation variables.

Table 12: Functional classification system

Function	Road classification (1) Country	Nomenclature	ADT (2) (last year of design)	Number of lanes
Main arterial	Highway	AA	>20,000	6-8
	Rural arterial	AR	10,000 - 20,000	4-6
	Urban arterial	AU	10,000 - 20,000	4-6
Minor arterial	Rural minor arterial	AMR	3,000 - 10,000	2
	Urban minor arterial	AMU	3,000 - 10,000	2
Major collector	Rural major collector	CMR	10,000 - 20,000	4-6
	Major urban collector	CMU	10,000 - 20,000	4-6
Minor collector	Rural minor collector	CR	500 - 3,000	2
	Urban minor collector	CU	500 - 3,000	2
Local	Rural premises	LR	100 - 500	2
	Local urban	LU	100 - 500	2
	Rural	R	<100	1-2

1. Except for the rural classification which is unpaved, all other categories are paved. Classes CR, CU and LR may also be paved or dirt.
2. Average Daily Traffic (ADT)

Source: JST.

Likewise, the 2010 Central American Manual on Road Maintenance with a Risk Management and Road Safety Approach is in the process to be updated in its approach, along with the incorporation of the climate change adaptation variable.

There are four types of vehicles for road design, as shown below:

1. Light vehicles: cars, jeeps, agricultural trucks, sport utility vehicles, pickup trucks, vans, etc.
2. Buses, including articulated buses
3. Trailer trucks (2 or 3 axles)
4. Tractor truck with semi-trailer

However, it is necessary to have detailed definitions of the dimensions for each of these four types of vehicles. As a result, they adopted the following vehicle dimensions commonly used in Central America.

Table 13: Design of vehicular dimensions (in meters)

Vehicles	Height	Width	Length
Light vehicles	1.3	2.1	5.8
Truck	4.1	2.4	9.2
Bus	3.7	2.6	12.2
Articulated bus	3.4	2.6	18.3
Trailer truck with semi-trailer	4.1	2.6	20.9

Source: Central American Manual of Standards for the Geometric Design of Highways, SIECA.

(3) Vehicle maintenance standards

The Central American Manual of Standards for the Mechanical Inspection of Vehicles, prepared by SIECA in 2009, specifies that an RTV (Vehicle Technical Inspector) must oversee the inspection. In general, the main conditions of the vehicle and its safety elements must be verified in such a way that they comply with the minimum maintenance, operation and safety requirements to ensure acceptable driving conditions and that it does not represent a danger as defined by the pertinent regulations. The following elements are subject to inspection: vehicle registration, bodywork, vehicle interior, signaling, lights, brakes, wheels, axles and suspension, chassis, engine and transmission.

The competent authorities of each country are obliged to sanction any violation detected as stipulated in the SIECA manual. Such penalties are fines, suspension of vehicle registration, cancellation of license plates, driver's licenses, registration, operation or impounding of the vehicle.

(4) Weight management system for cargo vehicles

Regarding management and regulation of cargo vehicles in Central America, the Transit and Road Transport Authority of Panama (ATTT), as well as ministries of transport in the other five regional countries, control the weight and length of cargo vehicles.

However, actual enforcement of the regulations varies by country, and it is difficult to impose sanctions given the limited number of vehicles weighing stations.

SIECA's Central American Agreement on Weights & Dimensions of Cargo Vehicles is used for international cargo traffic, but not domestic traffic in each country, as national regulations may vary from regional ones.

Regulations on weights and dimensions in El Salvador and Nicaragua are consistent with the Central American Agreement. In Guatemala, the maximum allowable weight of some vehicles slightly exceeds that stipulated by the Agreement. In Honduras, maximum allowable weight is not consistent with the Agreement. In Costa Rica and Panama, the maximum allowable weight for most types of vehicles exceeds that stipulated in the Central American Agreement.

Manuals and related regulations:

- Regulations for the Control of Weights and Dimensions of Cargo Motor Vehicles and their Combinations (Governmental Agreement 379-2010), Guatemala, CIV, 2010.
- Special Law on Road Cargo Transport (Decree No. 367), El Salvador, Congress, Republic of El Salvador.
- Federal Highway Administration (FHWA: Federal Highway Administration), USA.
- Directive 96/53 / EC, European Modular System (EMS: European Modular System), EU.

2.4.6 Coordinated Border Management

(1) Description

The Central American Strategy for Trade Facilitation and Competitiveness, which focused on coordinated border management (ECFCC), represents a valuable regional instrument to advance Central American economic integration. Coordinated Border Management (CBM) mainly aims to streamline border procedures and inter-institutional/bilateral coordination. ECFCC was approved by COMIECO LXXIII in 2015.

This effort represents a vital strategy to align trade facilitation objectives of all Central American countries, which are part of the Central American Economic Integration Agreement.

(2) Short-term priority actions

Under the ECFCC, the following five actions have been implemented as short-term priority measures.

Table 14: Functional classification system

Function	Road class (1) Country
1. Advanced declaration of goods	Decrease or simplify procedures at border checkpoints.
2. Streamlining and coordination of migration controls	Simplify immigration procedures for truck drivers.
3. Electronic phytosanitary and animal health certificates	Facilitate and simplify sanitary controls.
4. Registration by radiofrequency devices (RFID)	Provide reliable information about border crossing times.
5. Use of camera systems at border crossings.	Provide visual information on border control transparency.

Fuente: JST.

(3) Medium- and long-term priority actions

The second major component of the Central American Strategy for Trade Facilitation and Competitiveness incorporates eight medium- and long-term measures. These are intended to be implemented gradually once short-term goals are achieved.

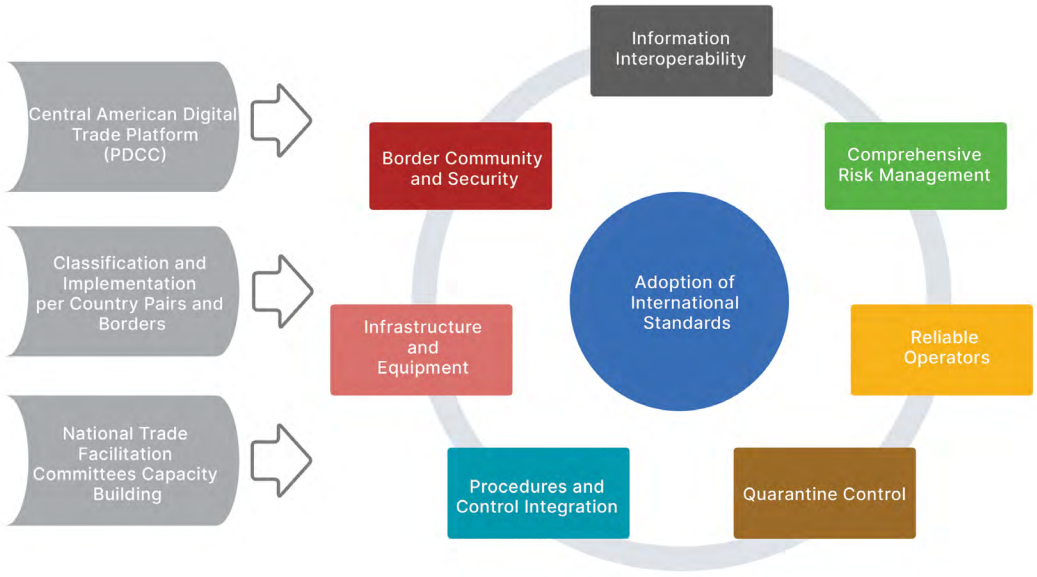
1. Adoption of international standards
2. Information interoperability
3. Comprehensive risk management
4. Reliable operators
5. Quarantine control
6. Integration of procedures and control
7. Infrastructure and equipment
8. Border community and security

These medium/long-term measures aim to establish the Coordinated Border Management Model (CBM). This strategy encourages countries to implement a regional IT platform to integrate the information and processes for customs, migration and single-window management. This digital tool will contribute to trade facilitation and regional economic integration.

The development and integration of the Central American Digital Trade Platform (PDCC) are through SIECA, which is a catalogue of services or processes related to intra- and extra-regional trade operations. Through a web environment, users will be able to interact from the PDCC and interoperate with existing national platforms and systems, or those currently developed by institutions involved in trade processes. This tool will be part of the Regional Information Platform of the Central American Economic Integration Subsystem administered by SIECA.

The main objective of the PDCC is to ensure regional interoperability transparency, and traceability among the sanitary, migration, customs and Foreign Trade Single-Window (VUCE) systems from beneficiary countries, as well as facilitate intra- and extra-regional trade processes.

Figure 3: Coordinated border management model



Source: SIECA

(4) Customs union

In 2007, the Central American countries signed the "Framework Agreement for the Establishment of the Central American Customs Union," reiterating their willingness to form a customs union. This agreement establishes that it will be based on the objectives and principles of the regional integration instruments in force and following the provisions of Article XXIV 8.A from the General Agreement on Tariffs and Trade, GATT 1994, which is part of the World Trade Organization Agreement, WTO.

In this same agreement, it was indicated that the establishment of the customs union should be the result of the following three stages:

- Promotion of the free movement of commodities and trade facilitation
- Modernization and regulatory convergence
- Institutional development

Guatemala, Honduras and El Salvador signed the legal instrument: "Enabling Protocol for the Process of Deep Integration towards the Free Transit of Commodities and People between the Republics of Guatemala, Honduras and El Salvador." It has been ratified by Guatemala and Honduras; ratification by El Salvador is still in process.

The decision to continue along this path has enabled significant steps toward the free movement of commodities, people and means of transport. This is facilitated by use of a single form to carry out transfers and acquisition of goods exchanged, which represents 75% of traded commodities. This has been called: "Central American Single Invoice and Declaration (FYDUCA)." Electronic notifications of Sanitary and Phytosanitary Measures (SPS) have also been introduced. All of this has allowed very agile border transactions, without congestion or queues for means of transport.

The objective of completely free movement of commodities cannot be achieved until exempted goods are included. However, complete success will be achieved once all Central American countries benefit from this free movement of goods and people.

The Central American Strategy for Trade Facilitation and Competitiveness focused on Coordinated Border Management (ECFCC) represents a valuable regional instrument to advance Central American Economic Integration, using a common objective such as the Regional Model for Coordinated Border Management (CBM), mainly in terms of streamlining border procedures and inter-institutional and bilateral coordination. The ECFCC agreement was approved in 2015 by COMIECO at its LXXIII session.

This effort represents an important strategy to align the trade facilitation objectives of all Central American countries, which are part of the Central American Economic Integration Treaty.

2.4.7 Urban Logistics Axis



(1) Description

The Urban Logistics Axis aims to create an intelligent cargo transport system in urban areas of Central America that integrates different modes to provide efficient, accessible and high-quality logistics services. In this way, distribution of products will be optimized, making supply chains more efficient by reducing operating costs, thus facilitating regional trade, improving the competitiveness of exports and contributing to the dynamism of Central American economies. By meeting the needs of producers, distributors and consumers, as well as those of pedestrians and passengers, the aim is to create cities that offer optimal conditions for the distribution of goods.

(2) Intra-regional road transport

Only carriers registered in the country of origin or destination may transport international road cargo within Central America. Cabotage of trucks (domestic transportation by trucks outside their country of registration) is not permitted to protect domestic carriers.

The Central American region has established uniform standards for freight vehicle weights and dimensions to facilitate this international movement. Each country has improved its national regulatory and enforcement systems for cargo vehicles to comply with these Central American standards.

As for logistics-related organizations, Honduras and Panama have created special agencies to promote cross-cutting issues in the logistics sector.

Table 15: Laws and regulations related to the logistics sector in Central America

Country	Instrument	Situation
CR	Regulation of Motor Freight Transport (No. 15624-MOPT)	This regulation covers local cargo transportation services. Only national companies or individuals can provide motorized transport services between two points within the territory of Costa Rica, in addition to cargo in transit.
	Traffic Regulations Based on the Weight and Dimensions of Cargo Vehicles (No. 31363- MOPT)	Regulates the technical and legal mechanisms for the control of freight vehicles.
SV	Land Transport, Transit, & Road Safety Law (Decree No. 477)	Law covers aspects of traffic and road safety, including vehicle dimensions.
GT	Transit Law (Decree No. 132- 96)	Law addresses general aspects related to traffic control, such as vehicle processing, driver's licenses, parking, traffic signs, traffic regulation, street lighting, etc. There are urban traffic regulations for trucks to limit congestion during peak hours; however, this increases transport costs due to lack of bypasses.
HN	Road Transportation Law (Decree 319-76)	Regulates the road freight transport service including provisions on tariffs, operating permits and assigns competencies for its regulation
	Transit Law (Decree 205- 2005)	Regulates use and circulation of motor vehicles in the country, including cargo transportation terminals.
	Regulation on Weights & Dimensions	In process of approval. Establishes regulations on weights and dimensions of vehicles for movement of people and commodities via the official road network.
	Logistics Services Law (preliminary draft in preparation)	Determines cargo logistics, regulates management of cargo transport and logistics services and provides institutional framework for the sector.
	Law on the National Council of Logistics (Decree 053-2018)	Creates the National Logistics Council (CNL) to serve as a facilitator for organizations related to logistics activities.
NI	General Road Transport Law - LOTT (Law 524, Official Gazette No. 72 of 04/22/2005)	Land transportation service standards for people and commodities. Establishes the MTI as the regulatory entity for the cargo transportation sector.
	Amendments to General Road Transport Law - LOTT (Law 616, Official Gazette No. 84 of July 5, 2007).	Modifies provisions related to cargo transport, competition, concessions, operation certificates, service fees, permits and penalties.
	General Transport Law Regulation (Decree 42-2005)	Establishes administrative and technical provisions for better understanding and application of the General Transport Law.
	Amendment to General Transport Law Regulation (Decree 43-2006)	Modifies provisions related to cargo transport vehicles, and technical standards on weights and dimensions, etc.

PA	Weights and Dimensions Regulation (No. 10 24/1/1989)	Regulates size and weight of trucks and determines penalties.
	Cargo Transport Regulations (No. 51 28/6/2017, No.229 2018).	Regulates transport of road freight and modifies vehicular traffic regulations. Only vehicles with Panamanian plates may transport commodities and/or materials whose origin and destination is within the national territory (cabotage cargo).
	Creation of Logistics Office (No. 90 18/5/2012)	Creates the Logistics Office of Panama to serve as a facilitator for relevant organizations involved in logistics activities.

Source: JST.

(2) Prohibition of truck traffic during peak hours

In major cities of most regional countries, trucks are prohibited from entering and passing through urban areas during the morning and evening rush hours. This ban is one of the most effective urban traffic management methods, helping to relieve congestion, improving road safety and improving the traffic environment during busy hours.

On the other hand, trucks using the arterial road network to transport commodities must avoid peak hours by passing through urban areas before, or waiting outside restricted areas until off-peak hours. Since most large cities do not have bypass roads or detours, policies that prohibit the entry and passage of these vehicles during peak hours are likely to delay and increase the cost of freight transport.

Therefore, while the policy of prohibiting trucks during peak hours can remain the same, measures are needed such as bypass roads, detours, and distribution centers located along these alternate routes.



2.4.8 National Legal Frameworks Related to SEA

Each Central American country has its own legal framework for environmental and social considerations. Projects proposed in the Master Plan will be reviewed and approved within each country's legal framework. In this Regional Master Plan, a comprehensive GIS assessment tool was developed, and it is expected to be applied to the environmental review process in each country.

Table 16: Environmental and social legal frameworks of the Central American Countries

Country	Law
CR	Decree No.31849-2004.
SV	Decree No.233.
GT	Government Agreement No.137-2016, Regulation of Environmental Evaluation, Control and Monitoring.
	Framework Law on Climate Change (Decree 7-2013).
	Low Emission Development Strategy, and the Paris Convention under the UNFCCC, such as the nationally owned contribution determined -NDC-.
HN	Ministerial Agreement No.008-2015.
NI	Decree No.20-2017.
PA	Decree No.4-201.

Source: JST



Road transport. Nicaragua.



Chapter 3

VISION AND STRATEGIC OBJECTIVES

Contents

3.1 Vision and strategic objectives
3.2 General guidelines
3.3 Relationship between strategic objectives and general guidelines
3.4 General strategies
3.5 Strategies by axis
3.6 Environmental Assessment (SEA)

CHAPTER 3. Vision and strategic objectives

This chapter introduces the strategic objectives of the Master Plan (M/P), which are consistent with the Regional Mobility and Logistics Framework Policy (PMRML). It presents general strategies organized around the cross-cutting and sectoral axes. The logic behind this section relies on the following process which is in turn based on the national and regional contexts described in previous chapters regarding the socio-economic, environmental and legal frameworks. It also considers the vision and general objectives that this M/P sets out for Central America.



The general objective has four strategic objectives. These include strategies embodied in three spatial levels for each of the axes, presenting a structured perspective to visualize the comprehensive, relevant and coherent nature of the M/P proposals. The implementation process for these proposals translates into concrete projects along 11 corridors that are described in Chapter 4.

3.1 Vision and strategic objectives

Vision

"Central America will be an integrated and competitive region that provides its population with adequate transport along with supply chains that function organically, with diversified trade, strengthened regional complementarities and balanced/sustainable value chains; and with spatial development that improves the quality of life of its citizens, in harmony with nature."

General objective

Build a competitive, efficient, effective, safe and resilient regional mobility and logistics system that integrates various modes of transport to adequately move people and facilitate value chains at national, regional and global levels.

Strategic objectives

1. Develop a robust, competitive, safe, secure, resilient and redundant regional intermodal transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.
3. Increase the efficiency and quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border-crossing procedures.
4. Promote efficient/sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.

3.2 General guidelines

The general guidelines are based on statements adopted in the PMRML. Plus, the concept of coherence between national and regional plans (Item 12) to achieve the cohesion necessary to achieve the objectives of the M/P is also discussed.

Table 17: PMRML and M/P guidelines.

1	Contribute to creation and strengthening of regional value chains.	The M/P must prioritize creation and strengthening of regional value chains to promote sustainable growth of the Central American economies.
2	Reduce costs and times on mobility and logistics	All sectoral policies should contribute to improving performance levels of national/regional logistics and to reducing costs.
3	Improve quality and availability of regional infrastructure & connectivity equipment.	Optimize transport, logistics and mobility infrastructure supply, as well as developing logistics corridors (national/regional). To this end, actions need to be coherent and complementary, including those considered in this and any other related policy.
4	Achieve a sustainable modal integration.	Promote a complementary intermodal transport matrix and integrated transport/logistics systems to encourage greater transport supply.
5	Reduce insecurity in transport and logistics operations.	Integrate these issues into sectoral policies, promoting a coordinated approach between public & private sectors with adequate categorization and monitoring of risk factors.
6	Reduce negative externalities on the environment and society.	Sectoral policies must ensure reduction of negative environmental and social externalities, e.g., pollution, energy consumption, climate change adaptation and mitigation, plus basic social aspects such as road safety, accident reduction, improvement of public transport, etc.

7	Promote adoption/use of ICT tools in transportation.	Promote use of information and communications technologies to ensure efficient logistics and mobility systems, aimed at enhancing cargo traceability, cargo-handling technology, creation of integrated distribution chains and improved mobility to achieve high-quality, cost-efficient services.
8	Ensure integrated, coherent regulatory & institutional frameworks.	Promote sectoral legislation in single legal framework, focusing on creation of an adequate institutional environment and generation and dissemination of information, as well as strengthening regulations related to mobility, logistics and international transport.
9	Incorporate sectoral planning tools.	Incorporate spatial planning tools that promote sustainability in infrastructure development with short-, medium- and long-term vision.
10	Promote technical training and institutional capacity building.	Sectoral policies should provide for training and provision of suitable talent to design, implement monitor and assess sectoral frameworks.
11	Use of strategic monitoring and evaluation tools.	Establish monitoring and evaluation systems to follow-up on reforms and their impact on goals set for each area.
12	Promote consistency between the Regional Master Plan on Mobility and Logistics 2035 and national plans.	Seek coherent alignment between PMRML and national plans, so that actions are compatible.

Source: PMRML & JST.

3.3 Relationship between strategic objectives and general guidelines

The following table shows the relationship between strategic objectives of the M/P and general guidelines of the PMRML and proposed guideline #12. This shows that the plan and implementation processes are consistent with the policy. As such, these processes are expected to be adopted by the regional countries.

Table 18: Relationship between M/P strategic objectives and PMRML general guidelines

Nº	Strategic objective	PMRML General Guidelines											Plan
		1	2	3	4	5	6	7	8	9	10	11	12
1	Develop robust, competitive, safe, secure, resilient and redundant regional intermodal transport system.	x	x	x	x	x	x	x	x	x		x	
2	Create transport & logistics network that contributes to spatial development, economic productivity and regional integration.	x	x		x		x			x	x	x	x
3	Increase efficiency/quality of intra-regional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.		x				x	x	x		x	x	x
4	Promote efficient/sustainable urban logistics solutions to address congestion caused by cargo transport in cities.		x				x				x	x	x

Source: JST.

3.4 General strategies

General strategies are developed by means of:

- Two cross-cutting axes:

  1). Production & trade 2). Mobility & logistics
- Six sectoral axes:

  1). Road infrastructure & land transport, 2). Port-maritime, 3). Aeronautical-airport; 4). Rail transport, 5). Coordinated border management, 6). Urban logistics.

In both cases, the strategies are based on spatial scales, meaning that these are classified by level.

- Level 1: Regional level strategies
- Level 2: Subregional level strategies
- Level 3: National level strategies

The strategies proposed in each of the axes are framed within strategic objectives proposed by the M/P.

Cross-Cutting Axis 1

Productive and Trade Sectors

General Strategies

3.5 Strategies by axes

Considering that the plan is based on a regional-scale vision of mobility & logistics, the productive and trade sectors are an essential factor for strengthening economic development in Central America.

Objetives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level 1

- Develop a regional system of logistics platforms to identify high-impact actions in key production chains.
- Identify global value chains that can be integrated into the region's links with Mexico and the U.S.
- Promote infrastructure resilience against climate change effects and natural disasters.
- Promote use of IT to improve security of regional logistics chains.
- Facilitate private-sector investment in logistics infrastructure.

- Promote connectivity and maintenance of secondary and tertiary road networks (rural roads), mainly those connecting production areas.

Subregional Level 2

- Promote priority logistics corridors as customs routes.
- Develop information systems to support economic integration corridors and meet the needs of the productive and trade sectors.

- Develop intermodal cargo transfer terminals in the corridors and at connection points and platforms.

National Level 3

- Promote investment in economic and productive infrastructure to integrate national and regional value chains.

- Harmonize national and regional plans.
- Strengthen the regional integration vision as part of national plans.

Strategies proposed for this transversal axis seek to improve regional connectivity and connection points to the rest of the world, as well as achieving quality, resiliency and high-tech infrastructure & equipment to develop safe and efficient processes. These should support the approach to creating strategic economic logistics corridors.

Strategies proposed under each of the four objectives are described as follows:



3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Promote development of customs infrastructure and equipment to meet the operational demands of each border crossing point and functional requirements of control processes. This includes parking areas, traffic lanes, signage, roofed vehicle control areas for officials, use of technology in processes and vehicle clearance, etc.	• Promote policies or investment programs for logistics platforms to improve cargo movement in main regional cities. • Create cargo logistics information systems in main cities.
• Approve/implement multimodal customs procedures • Promote training programs to implement multimodal customs procedures.	• Promote investment in logistics platforms to improve trade and regional integration corridors.
• Conduct regional studies on improving border crossings in each country.	• Promote construction of cargo transfer terminals in cities and/or surroundings. • Develop municipal or inter-municipal urban logistics plans in the main regional cities.

Sectoral Axis 2

Mobility of People

General Strategies

As part of the region's spatial dynamics, and in addition to the movement of goods, the mobility of people is a factor with an important impact on passenger transport by land, sea or air. Better infrastructure, equipment, services & information and telecoms technology are vital to improve the quality and efficiency of passenger transport, as well as the safety and comfort of users.

Objectives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

1 Regional Level

- Conduct a study on human mobility.
- Develop a strategic planning system for road development, plus a traffic management system applicable to all transport modes.
- Invest in renewal of the vehicle fleet, including EVs and other alternative sources.
- Develop land use policies and incorporate tools for urban development.
- Develop intelligent road safety systems.
- Promote public transport infrastructure solutions and services, as well as pedestrian and passenger transfer facilities and access to transport in cities and on highways.
- Provide adequate signage and related training programs.
-

2 Subregional Level

- Strengthen public transport institutions.
- Promote upgrading of standards and regulatory frameworks to improve passenger mobility.
- Promote development of priority urban infrastructure focused on encouraging public transportation.
- Develop urban passenger distribution platforms.

The needs become more evident considering that Central America's population surpassed 50 million 2020 with an annual growth rate of 1.4%. This represents a significant pool potential of transport users in each country, plus passengers transiting the region from other countries beyond the region.

Strategies proposed for each of the four strategic objectives are listed below.



3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.

- Promote integration of cargo & passenger transport systems by developing feeder platforms to switch from one transport mode to another.
- Promote highway rest areas featuring services for travelers that create opportunities for local SMEs.

4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.

- Strengthen/modernize public sector institutions.
- Modernize standards and regulatory frameworks to enhance human mobility.
- Promote construction of bypass roads and ring roads to facilitate vehicle circulation around cities.

Objectives

	Strategic		
	1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.	
National Level 3	• Develop passenger transport systems offering safety on several fronts: a) passenger safety; b) traffic safety (air, land, rail & maritime); c) signaling; d) functional infrastructure; e) types, handling and maintenance of reliable vehicles; and f) qualified personnel. • Implement traffic engineering controls and procedures related to traffic management and road safety in major cities. • Conduct permanent inspection programs on the operating conditions of transport units.	• Deploy adequate roadside signaling at a national level along with new technologies for vertical and horizontal signals on roads, bridges, rights of way, etc. • Optimize traffic signal network. • Develop intelligent road safety systems and user information technology components. • Permanent vehicle inspection programs.	



Transport of Passengers. Guatemala.

	3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
	• Develop better passenger facilities at border crossings. • Develop better facilities to process passenger crossings at border posts.	• Ensure that bus and truck drivers are aware of regulations and follow them. • Incorporate new transport modes and alternatives. • Promote electro-mobility. • Prepare spatial planning studies to develop cities.



Sectoral Axis 1

Road Infrastructure and Land Transport Axis

General Strategies

Road infrastructure in the Central American region operates 24/7 with cargo and passenger transport offering different levels of connectivity: international, regional and national. This system promotes local and regional development, facilitating trade and the mobility of people.

Objectives

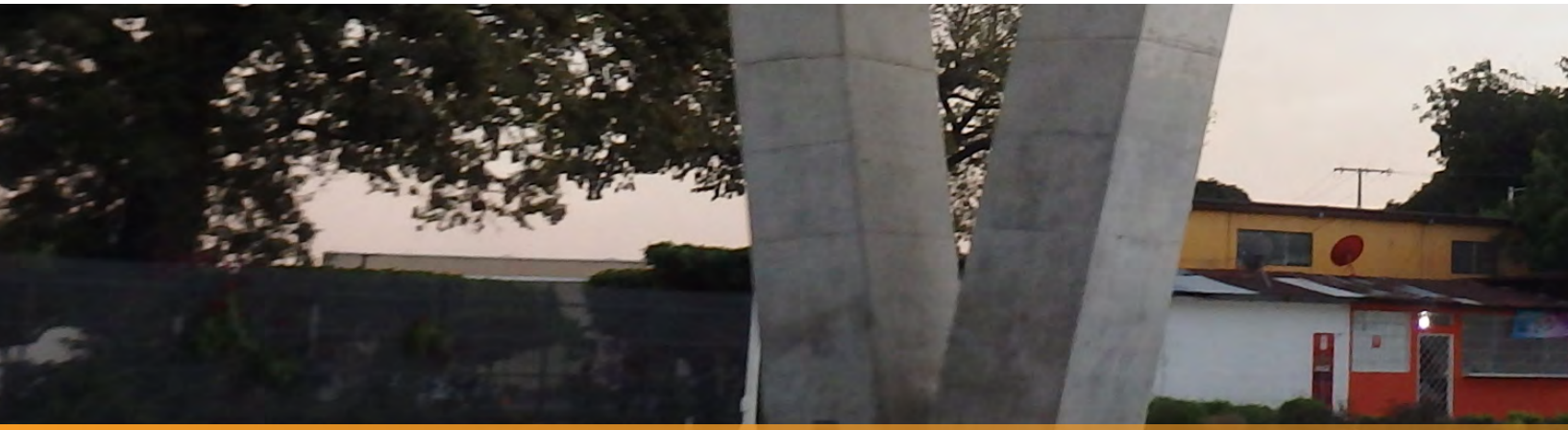
Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level 1

- Formulate a master plan to develop the intraregional highway network.
- Create common road-condition assessment systems.
- Develop master plan for ITS (Intelligent Transport Systems).
- Adopt standardized regional biosafety protocols at border crossings.
- Promote common measures and technologies for road-safety controls, cameras, sensors, GPS, etc.
- Promote Vehicle Technical Inspection (Revision Técnica Vehicular, 2009 SIECA).
- Update agreement on weights & dimensions of trucks.

- Create regional database (data exchange system) for road networks, traffic (volume, speed, etc.) and road surface physical conditions (road structure, etc.).
- Coordinate actions between regional transport associations and road administrators in regional countries to establish common standards for movement of cargo and passengers.



Road Infrastructure.

The road system is vital to securing safe, efficient and high-quality transport throughout Central America. Plus, the road system must be coordinated with other modes to give Central America a comprehensive network that supports the development, integration, and competitiveness of the region, thus improving the quality of life of its people.

Based on the above, the proposed general strategies are proposed, according to each of the four strategic objectives.

3. Increase the efficiency and quality of intraregional transport and logistics by improving infrastructure and related services, along with common, integrated and efficient border crossing procedures.

- Create bypass lanes for empty trucks at border crossings.
- Implement a common driver's license system.
- Implement a regional insurance coverage scheme for trucks.

4. Promote efficient and sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.

- Conduct a study on use of hydrogen-powered electric vehicles.
- Develop a road sector plan that contributes to the region´s sustainable development (CO_2 reduction).
- Formulate road-sector environmental management plans.
- Create regional system to monitor environmental performance of land transport.



Objectives

	1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.
Strategic		
Subregional Level 2	• Formulate a corridor-based road infrastructure development master plan including alternative road networks to increase redundancy. • Provide real-time, online information for safer driving, including weather, traffic congestion, road surface conditions, construction delays, broken down vehicles and traffic accidents, etc. • Install truck inspection equipment to increase safety, e.g., weigh scales, road lighting, speed control, etc. • Promote construction of rest areas for long-distance truck & bus drivers, similar to Japan's Michi-no-Eki1.	• Provide technical support to road administrators maintaining Central American corridor highways. • Build a high-level road network to develop specific areas.
National Level 3	• Immediately rehabilitate/reconstruct roads & bridges in 43 identified sections. • Build resilient road infrastructure that can quickly recover from natural disasters. • Conduct periodic road condition inspections. • Build support facilities for multimodal transportation, such as truck terminals at rail freight stations. • Build adequate roads to/from ports and border crossings. • Regulate Vehicle Technical Inspection and install related inspection equipment	• Improve national road & traffic databases using advanced technology. • Hold regular coordination meetings with freight forwarder associations, outsourced service providers and other stakeholders. • Develop high-level road network to support SEZs.

1 Rest areas for travelers located along Japan's highways and expressways that also support tourism and local businesses.

	3. Increase the efficiency and quality of intraregional transport and logistics by improving infrastructure and related services, along with common, integrated and efficient border crossing procedures.	4. Promote efficient and sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
	• Promote construction of roadside rest areas and services to provide comfortable facilities for road users and boost local economies (Michi-no-Eki).	• Conduct studies on hydrogen-powered electric vehicles along the corridors. • Implement corridor improvement program consistent with sustainable development activities plan for the entire region.
	• Propose digital lanes for more efficient border crossing by empty cargo and/or passenger vehicles.	• Build ring roads and bypasses to prevent heavy vehicles from passing through urban areas. • Use light electric vehicles in urban areas for small package distribution (cargo). • Regularly monitor national indicators associated with sustainable development.

Sectoral Axis 2

Port-Maritime Axis

General Strategies

Maritime transport plays a strategic role in trade between regional countries and international markets. Maritime transport and port equipment represent a key and determining factor in the economic development of the region.

Objectives

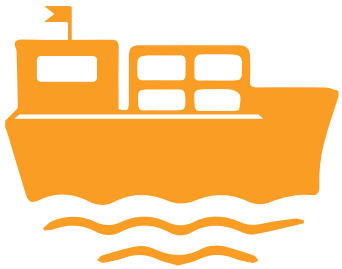
Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level

- Promote synergy and coordination between ports on both coasts, including contingency plans and coordinated support for each of the interoceanic corridors.
- Improve port access roads to consolidate interoceanic corridors.
- Develop/implement KPIs (key performance indicators) to monitor performance of ports and intermodal transport in Central America.
- Standardize regional protocols on biosecurity at seaports.
- Implement vessel and port facility security plans in accordance with International Maritime Organization standards.
- Promote adoption of international agreements on trade facilitation, marine environment protection, etc. among regional countries and support implementation by developing necessary mechanisms (FAL, MARPOL, SOLAS, etc.).
- Promote networking and collaboration between regional transport and logistics clusters in strategic territories near or with access to ports.
- Improve statistical data collection and analysis systems to monitor and assess key port operations indicators (COCATRAM & REMARPORT).
- Formulate specific regional improvement plans for use of ports and other improvements in support of regional trade.
- Update/implement Central America Regional Port Maritime Strategy.

Central American ports must have high-quality, resilient and efficient port equipment, as well as trained staff that contribute to improving logistics processes, thus strengthening this transport axis. General strategies are presented below.



3. Increase efficiency and quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border-crossing procedures.	4. Promote efficient/sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Technical and operational capacity building for COCATRAM and its networks. • Enhance transport infrastructure on the Pacific Corridor, prioritizing multimodal links between neighboring ports in the region. • Incorporate ports in the Central American Trade Digital Platform. • Promote implementation of the DUCA system and other procedures at the maritime transport level. • Promote approval and implementation of multimodal customs procedures.	• Set up facility to monitor regional indicators associated with port development.

Objectives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport & logistics network that contributes to spatial development, economic productivity and regional integration.

Subregional Level 2

- Improve and modernize inter-port health and safety protocols.
- Strengthen port risk-management by developing emergency monitoring and early warning systems to enable implementation of contingency plans between neighboring ports.
- Implement Short Sea Shipping Routes (SSS) in regional ports by coordinating ports and key stakeholders, including: cargo owners/consignees, logistics operators and inland carriers, along with coordinated management of port administrators and customs authorities of the relevant countries.

- Promote intermodal transport by connecting ports and infrastructure with land transport services (rail and truck).
- Improve the role of ports as foreign trade gateways.
- Promote creation of inter-institutional Short Sea Shipping commissions in regional countries.



Sea Port, Panama.

3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Strengthen intermodal transport services using ocean corridors and canals. • Improve communications & technology facilities at ports and border crossings to connect cargo between binational or trinational ports. • Develop common vessel service and cargo handling procedures for SSS.	• Implement regional plans in bi-national urban areas on-route to ports.



Objectives

National Level 3

Strategic		
1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.	
• Draft/implement port business continuity plans. • Modernize port facilities, equipment & procedures. • Improve vessel and cargo handling services with specialized services based on global standards. • Implement systems to monitor performance of port operations and activities based on key performance indicators (KPIs). • Comply with IMO regulations and guidelines. • Promote compliance with environmental code of conduct for ports. • Strengthen safety & security for facilities, vessels, personnel & goods with latest technology. • Develop and implement occupational health and safety regulations.	• Improve data collection & analysis with technologies such as BIM (Building Information Modeling) and Digital Twin. • Promote regular coordination meetings with carriers, logistics operators, transport & warehousing firms and competent authorities, among other stakeholders. • Develop value-added activities and services within port facilities to support industrial activities, including SEZs. • To support the tourism industry, build specialized terminals to service cruise ships and passengers. • Improve access roads to ports.	



Port of Acajutla, El Salvador.

	3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.

- Launch digital transformation of port operation services.
- Strengthen institutional and port authority capacities.
- Promote port specialization to service specific commodities and vessel types.
- Develop/implement joint protocols for intrusive goods inspection.

- Implement appointment system for inspection, dispatch and reception of goods, creating dedicated areas for truck drivers and cargo (pre-port).
- Formulate plans to promote construction of logistics service centers in port areas, within the framework of comprehensive urban planning to mitigate the effects of cargo traffic in cities.



Sectoral Axis 3

Aeronautical – Airport Axis

General Strategies

The air transport sector is increasingly vital in moving both people and goods across the region and around the world. Optimizing the efficiency of air transport is vital to the competitiveness of regional economies.

Objectives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional intermodal transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level

- Develop emergency air cargo transport plan (medical supplies and other equipment).
- Conduct a "Single Central American Sky" study (shared, high-level air traffic control service) to increase air traffic safety and capacity (roadmap).
- Develop key performance indicators (KPIs) to monitor airport operations in Central America.
- Develop Airport Free Trade Zones.
- Adopt regional standard biosecurity protocols at airports.
- Promote compliance with environmental standards and regulations in air and airport operations.
- Improve collection and analysis of air traffic statistics (flights, passengers & cargo) starting with consolidation of data in a regional logistics information system.
- Implement coordination mechanisms between airlines, logistics operators, land transport & warehousing firms, as well as related authorities.
- Make plans to use regional airports for cargo and passenger transport in the event of natural disasters.
- Introduce regional Open Skies agreements.



Juan Santamaria International Airport, Alajuela, Costa Rica.

Air mobility in Central America is a key component of an integrated transport system that is vital to the region's economic development, integration and competitiveness. However, the aeronautical-airport system faces pressing challenges in terms of infrastructure, equipment and services needed to fulfill its vital role in linking Central America with the world. Listed below are measures required to meet the challenges.

3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.

- Increase capacity and intermodal connectivity of cargo airports to support exports from the region.
- Introduce common air cargo handling procedures.
- Introduce common automated immigration gateway system (E-gate).
- Promote implementation of Open Skies agreements in the northern Central American region.

4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.

- Develop adequate infrastructure for warehousing, cargo consolidation & deconsolidation, bulk handling, cold chain storage and perishable goods.
- Construct Logistics Activities Zones (LAZs) at airports, in the context of a regional development plan for logistics platforms.



Objectives

Strategic		
1. Develop a robust, competitive, safe, secure, resilient and redundant regional intermodal transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.	
Subregional Level 2 • Improve airport health & safety protocols. • Modernize airports and systems along the corridors. • Create Airport Free Trade Zones along the corridor. • Create communications systems linking medical institutions and tertiary hospitals with land transport service providers (ambulances, etc.). • Develop robust airport infrastructure and systems resilient to large-scale natural disasters.	• Improve intermodal transport by connecting airports and infrastructure with land transport services. • Introduce Open Skies agreements (in the three Northern countries).	
National Level 3 • Make business continuity plans for airport services. • Install advanced ATM and CNS systems. • Modernize cargo storage facilities at airports. • Monitor performance of airport activities according to key performance indicators (KPIs). • Conduct studies on Airport Free Trade Zones (preferential treatment, etc.). • Verify compliance with ICAO (International Civil Aviation Organization) standards. • Improve security management. • Improve security using advanced security screening tools & technologies, such as EDS (energy dispersive X-ray spectroscopy radiography).	• Improve airport inventory database, including facilities, using advanced technologies such as BIM (Building Information Modeling) and Digital Twin. • Hold regular coordination meetings with outsourced service providers (3PL) and land transport and warehousing companies. • Study Open Skies agreements with other countries.	

3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Increase frequency and options for direct cargo transport between countries to support imports & exports between intra-regional clusters.	• Improve links between intermodal systems & logistics centers focusing on airports with most capacity to handle international cargo. Cargo landed at these airports would be transported to nearby countries by land, thus promoting off-peak schedules. • Alleviate urban traffic congestion caused by airport activities by improving organization and planning methods.
• Implement digital transformation of passenger and cargo air transport services (E-Gate). • Verify compliance with ICAO standards. • Introduce common automated immigration gateway system (E-gate).	• Plan new airports in areas that meet requirements for safety, landing, potential expansion, availability of space for logistics activities, access to road networks, etc.

Sectoral Axis 4

Railway Transport Axis
General Strategies

The Central American rail system, built in the 19th century, represents a major challenge for the region as it has been disused for many years in most countries. Reactivating the rail system depends on several factors including rights of way expansion versus land use and track sections suitable for new transport equipment, etc. However, reactivating railways and linking them across Central America is a regional priority.

Objectives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level 1

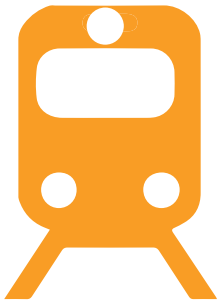
- Adopt common rail technology standards.
- Conduct study on regional railway integration model.
- Implement provisions of "Regulation on harmonized general technical specifications for railroads in Central America."
- Conduct study on impact of Trans-isthmus Train in Mexico on cargo rail transport to/from Guatemala, via the Tecún Umán border crossing.
- Adopt approved regional biosafety protocols at railway stations.
- Create permanent regional railway body (continuity of the GTR railway).
- Hold regular coordination meetings with rail operators, outsourced service providers (3PL), land transport and warehousing companies, among other stakeholders.
- Conduct study on interconnection with Mexico's Mayan Train.

Subregional Level 2

- Conduct studies on other railways in designated corridors as alternatives to trucks (e.g., land bridges connecting Atlantic & Pacific oceans).
- Strengthen intermodal transport by connecting rail stations and services with road transport infrastructure.
- Conduct studies on transport of specific strategic commodities such as minerals and agricultural products.

Despite the potential of urban rail systems, the region needs to address this issue in specific studies prior to defining suitable strategies. This is necessary to obtain specific data on passenger demand based on origin and destination within metropolitan areas, and under a co-modal vision that links airports, ports and road systems.

Rail transport is a key strategic tool that can contribute to national and regional economic development, both for cargo and passenger transport. Proposed general strategies are detailed below.



3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Develop common procedures to expedite border crossings for passengers and cargo on intraregional trains (customs, quarantine, inspection).	• Improve regional rail network linking with inter-oceanic and intraregional corridors, promoting use of alternative routes to mitigate cargo traffic passing through cities. • Promote periodic monitoring of regional indicators associated with rail system by a regional observatory.
• Conduct studies on rapid rail service for corridors with high travel demand.	• Develop railway facilities and border crossings in connecting segments with neighboring countries.

Objectives

	Strategic	
	1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.
National Level 3	• Promote urban rail projects in major cities. • Develop robust rail infrastructure and systems that can withstand natural disasters (strengthen existing rail system). • Recover existing railway tracks and rights-of-way. • Conduct studies on improving links with SEZs (by truck) and development of railway free trade zones (preferential treatment, etc.). • Improve safety and security management. • Strengthen security with advanced security screening tools and technologies, such as EDS (energy dispersive X-ray spectroscopy) radiography. • Improve safety at rail crossings at a national level.	• Hold regular coordination meetings between operators, outsourced service providers (3PL) and land transport and warehousing companies. • Conduct studies to improve intermodal transport (rail-to-ship).



Railway, Tecún Umán, Guatemala.

3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Launch digital transformation of passenger and cargo rail transport services.	• Conduct studies to rehabilitate and rebuild out-of-use railway lines in accordance with each PNLOG/ PENLOG. • Assess strategies to strengthen cargo movement in cities using urban trains.



Sectoral Axis 5

Coordinated Border Management Axis

General Strategies

In the region, significant efforts have been made to improve border crossing management to make processes more efficient and effective. In most cases, however, these have been isolated efforts by each country. Coordinated border management across the region will be a key factor in developing a more efficient and effective border crossing process.

Objectives

Strategic

1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.
2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.

Regional Level 1

- Reduce border crossing times by implementing updated version of the Central American Strategy for Trade Facilitation & Competitiveness, with emphasis on Coordinated Border Management (ECFCC).
- Introduce Regional System of Authorized Economic Operators (AEOs).
- Expand regional customs union process Central America.
- Improve customs procedures and facilities via cooperation initiatives with transport operators and regulators of land, sea and air transport modes.

- Improve prioritization of customs procedures for strategic export commodities.
- Initiate pilot plan with the AEOs, in accordance with the Mutual Recognition Arrangements/ Agreements on their AEOs (MRA/AEO).
- Create exclusive lanes for AEOs.
- Continue the strengthening process of AEOs and MRAs in Central America customs to design a regional coordination process and expedite border crossings in the region (improve facilities and IT systems).

Subregional Level 2

- Renovate land border facilities, including roads and bridges, mainly on the borders along the Pacific and interoceanic corridors.
- Monitor performance of border crossing services using RFID data.
- Install RFID devices in interoceanic cargo transport services.
- Standardize access, security, reliability and speed of telecommunications systems and infrastructure and information technology support at border posts.

- Promote organizations and intersectoral collaborative working groups involving governments and binational/ local stakeholders to create favorable conditions to attract investment & cross-border economic development opportunities.

Improving equipment at border crossings, as well as strengthening existing capacities at these posts, will contribute to coordinated, effective and secure border management. Following is a breakdown of proposed general strategies by objective and level of intervention.



3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Promote development of customs infrastructure and equipment to meet operational demands of each border post and functional requirements of control processes, parking areas, traffic lanes, signage, roofed vehicle control areas for officials, technology, vehicle clearance, etc. • Implement updated version of the ECFCC. • Establish Central American single electronic platform for completion and transmission of customs declarations as part of the CCDP.	• Regularly monitor regional indicators associated with cities near border crossings via the regional observatory. • Improve customs facilities by following SEA procedures to minimize negative environmental impacts.
• Collaborate with telecoms/internet service providers to ensure adequate service coverage at border crossings.	• Develop binational plans for spatial and road development in urban centers located next to integrated border crossings and other border locations experiencing issues due to cargo traffic.

Objectives

National Level 3

Strategic		
1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.	
• Establish business continuity plans for customs sector that includes countermeasures for natural disasters and infectious diseases in each country. • Strengthen trade facilitation administrative capacities.	• Integrate working groups to implement ECFCC plans	



Border Crossing. El Amatillo, El Salvador.

3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urba logistics solutions to address traffic congestion caused by cargo transport in cities.
• Improve customs, tax & quarantine regulatory framework in line with Central American Digital Trade Platform (PDCC), including data digitalization. • Collaborate with local governments to ensure reliable utility services (water, electricity and sanitation) at border crossings.	• Implement climate-change mitigation measures in design and maintenance of border crossing access roads & bridges and by developing bypass roads around urban centers. • Improve customs facilities in line with SEA procedures to minimize negative environmental impacts.



Sectoral Axis 6

Urban Logistics Axis

General Strategies

Urban logistics should be based on spatial planning and other specific plans related to transport and logistics in order to guide strategic actions in the process of implementing the M/P. The objectives of spatial plans and regulations must be consistent with M/P guidelines.

Objectives

Strategic	1. Develop a robust, competitive, safe, secure, resilient and redundant regional transport system.	2. Create a transport and logistics network that contributes to spatial development, economic productivity and regional integration.
Regional Level 1	• Conduct studies on use of advanced technologies for emergency transport such as drones in urban areas. • Implement a regional system for monitoring and controlling movement of hazardous cargo. • Develop cargo insurance plans valid across the region.	• Develop studies on a Central America common packaging and pallet system. • Promote key stakeholder networks in cities to establish communications, participation and data collection systems with an impact on mobility and logistics or which are part of strategic corridors of the region.
Subregional Level 2	• Develop storage facilities for emergency goods (food, medical supplies, etc.). • Establish surveillance and control system for cargo movement (illegal goods, cargo theft, etc.).	• Build regional public logistics centers along the corridor. • Provide technical assistance to investors in building regional logistics centers for spatial and strategic development, as well as imports and exports of key commodities.
National Level 3	• Support private transportation companies (SMEs) in formulating business continuity plans. • Provide emergency transport services using advanced technologies, such as drones. • Formulate urban logistics master plans. • Invite private cargo transport companies to use fleet management systems.	• Build urban distribution centers in coordination with private transport companies, including storage facilities on ring and bypass roads. • Enable online matching systems between transport operators & cargo owners (digital transformation). • Introduce a common packaging and pallet system in Central America. • Build logistics centers for strategic commodities.

Processes for use of land destined/reserved for general mobility, transport and logistics systems need to be defined. And mechanisms are needed to allow landowners to realize capital gains, while at the same time specific plans should promote sectoral projects. In both cases, the goal is to ensure that the processes involved in urban logistics are efficient, committed, environmentally friendly, safe and sustainable.

Proposed strategies for each of the four strategic objectives are described below.



3. Increase efficiency & quality of intraregional transport and logistics by improving infrastructure and related services, plus implementing common, integrated and efficient border crossing procedures.	4. Promote efficient & sustainable urban logistics solutions to address traffic congestion caused by cargo transport in cities.
• Promote regional regulations and standards to designate special areas in cities to encourage investments in industrial and productive export zones, meet logistics demand and prevent conflicts with other activities that undermine the competitiveness of industries.	• Conduct studies on environmentally friendly urban logistics technology & related facilities, such as electric and hydrogen-powered vehicles. • Periodically monitor regional indicators associated with cargo traffic in cities. • Establish key performance indicators (KPIs) to monitor the performance of urban logistics.
• Promote development of binational plans in areas near border crossings to establish integrated multimodal transport & logistics infrastructure and promote investment and strategic binational spatial development in the area.	• Build ring roads and bypass roads around major cities as part of the intraregional road system. • Create hours of service regulations to be combined with other measures, such as providing safe, convenient and accessible rest areas.
• Promote comprehensive urban land management strategies that allocate employment and production zones with access to public transportation and main, alternate, and ring roads connecting to clusters, as well as multimodal access of cargo transport.	• Conduct urban planning studies in city development. • Establish a legal framework for use of GPS tracking data (FMS data) for urban traffic control and management. • Reduce CO2 emissions from urban logistics sector. • Provide financial assistance to SMEs to replace older truck fleets with environmentally friendly vehicles.

3.6. Strategic Environmental Assessment (SEA)

As the UN's Sustainable Development Goals (SDGs) are the globally accepted standard for sustainable development, they are being used as the framework for developing the Master Plan SEA. As such, all aspects of the M/P must be consistent with the SDGs. In this regard, the SDG-SEA framework is expected to contribute to the following:

- Guiding the M/P, including cross-cutting and sectoral axes and strategies.
- Strengthening the M/P by assessing strategies and projects for consistency with the SDGs.
- Assessing the scope of projects within the cross-cutting and sectoral axes of the M/P, in compliance with the SDGs.
- Achieving an adequate balance among economic development, population growth, rational use of resources and environmental conservation.

3.6.1. SDG-SEA Framework

Considering that the PMRML is the overall policy driving development of the Master Plan, the strategic objectives of the policy serve as the basis for the SDG-SEA framework.

In this line, the PMRML covers the objectives corresponding to productivity, access, climate change and robustness. It also includes additional perspectives of the SDGs such as food security, health, gender, marine resources and protected areas. And it reflects the perspectives of the Regional Environmental Framework Strategy 2015-2020, in terms of climate change and environmental protection.

Based on the above framework, the seven SEA objectives for the Master Plan have been established to encompass comprehensive perspectives to guide the direction of policy and strategies.

- SEA-1 Increase productivity by integrating value chains and promoting value addition, including the interconnection of production centers with the market.
- SEA-2 Promote regional integration by increasing the efficiency and competitiveness of the region's transportation and logistics sector.
- SEA-3 Strengthen links between urban and rural areas and ensure equitable access to all transport services.
- SEA-4 Build resilient transport routes and systems to guarantee continuous food supply in extreme events, including securing alternate routes.
- SEA-5 Ensure safe transportation of goods and minimize accidents, pollution risks and health impacts.
- SEA-6 Avoid protected and conservation areas to maintain rich biodiversity and resource-based livelihoods.
- SEA-7 Reduce climate change effects by adopting clean and efficient transport modes to reduce CO2 emissions.

3.6.1.1 SDG-SEA Indicators

SDG-SEA Indicators are developed based on available data. Also, a Geographic Information System (GIS) and Transport Simulation Model will be used as support tools in the quantitative assessment of plans and projects.

- SEA-1 SDG 8: Production area to main logistics center (km)
- SEA-2 SDG 9: Cargo volume by mode of transport (T-km)
- SEA-3 SDG 11: Main corridor population coverage and transport network (people)
- SEA-4 SDG 2: Number of alternative routes in case of disaster
- SEA-5 SDG 3: Number of accidents
- SEA-6 SDG 14,15: Impact on sensitive areas (ha)
- SEA-7 SDG 13: GHG emissions per year (CO2/year)



SDGs and the Environment.





Chapter 4

MOBILITY DEVELOPMENT BASED ON STRATEGIC CORRIDORS

Contents

4.1 Mobility and Logistics Development Strategies based on Strategic Corridors
4.2 Chronological Development of Strategic Corridors

Chapter 4. Mobility & Logistics Development on 11 Strategic Corridors

The Master Plan proposals involve two fundamental dimensions: the spatial dimension, i.e., the geographic scope where the M/P proposes development of strategic corridors to stimulate regional economic development. Each corridor has one of three possible spatial scopes, as defined in Chapter 3: Level 1 (regional scope), Level 2 (subregional scope) and Level 3 (national scope). The methodology of strategic corridors and their spatial scope is fundamental to the effective implementation of the M/P, achieving regional integration through the transport system.

The other dimension is "time," focused on establishing short-, medium- and long-term strategies for gradual achievement of the objectives set out in the 11-corridor strategy. This time dimension facilitates establishing action plans that adjust to the reality and specific needs at different time periods, but in such a way as to progressively advance in achieving the objectives of the M/P, according to specific goals for each period.

Developing transport infrastructure with a corridor approach highlights the need to formulate and implement policies in the countries involved.

Wide dissemination of the detailed plans to develop transport infrastructure in each corridor can encourage investors to finance transport projects and SEZs. Plus, the corridor perspective gives financial institutions a framework for decisions on financing and investing in projects along the corridors.

The M/P portfolio includes an indicative list of projects. The final portfolio will be established based on future feasibility studies, and decisions adopted by each country.

The following sections of this chapter describe the scope of each of the strategic corridors and its projects, as well as the proposed development timeframe.

4.1 Mobility and Logistics Development Strategy in Central America

This Master Plan defines a strategic corridor as a linear connection of numerous cargo or passenger destinations, including physical and functional aspects, by means of efficient multimodal transport infrastructure to expedite the flow of people and goods. The corridor approach is a strategy to integrate fragmented territories, enhancing their characteristics and opportunities for productive growth and comprehensive development.

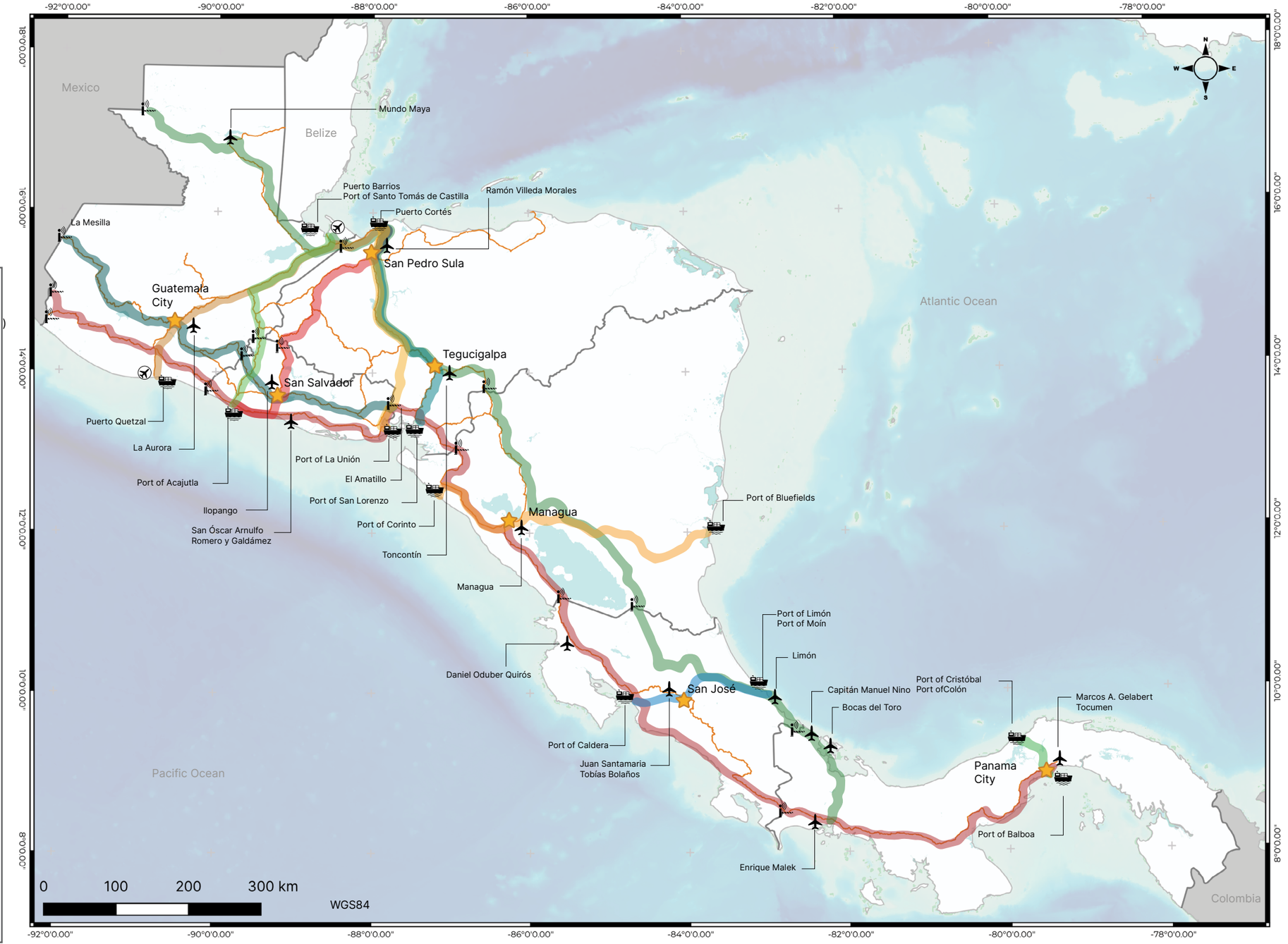
In this regard, 11 corridors were identified to promote socio-economic development of the region and facilitate the efficient movement of people and goods in Central America.

The proposal for the first corridor, C1, aims to improve the capacity and quality of transport to promote economic links within Central America, and trading relations with other countries beyond the region.

This corridor is the main development axis that crosses all the Central America countries. Increased capacity and speed of road transport is necessary to improve its functionality, along with network redundancy

Existing CA Road Network and Strategic Corridors
Map 9

Source: JST.



Legend

- C1. Pacific Corridor
- C2. Interior Corridor
- C3. Pan-American Corridor (El Amatillo-La Mesilla)
- C4. Interoceanic Corridor (Puerto Quetzal - Puerto Cortés)
- C5. Interoceanic Corridor (Port of Acajutla-Puerto Cortés)
- C6. Interoceanic Corridor HN (Port of San Lorenzo-Puerto Cortés)
- C7. Interoceanic Corridor (Port of La Unión-Puerto Cortés)
- C8. Interoceanic Corridor (Port of Acajutla-Port of Santo Tomás de Castilla)
- C9. Interoceanic Corridor (Port of Corinto-Port of Bluefields)
- C10. Interoceanic Corridor (Port of Caldera-Port of Limón/Moín)
- C11. Interoceanic Corridor (Port of Colón-Port of Balboa)
- Central American Highway
- Existing Sea Port
- Existing Airport
- Domestic airport
- Border Crossing
- Capital City
- Border
- Body of Water



Existing Road Network and Strategic Corridors

across the region via alternative routes and transport modes to avoid interruptions due to unexpected events. A current lack of predictability makes it difficult for businesses in the region to meet delivery deadlines, negatively affecting economic performance.

Maritime transport should play a more prominent role in Central America's international trade due to having coasts on the Pacific and Atlantic Oceans. At present, seaports transport long-distance containerized, bulk, piece cargo, etc. But studies for the M/P identify potential for coastwise Short Sea Shipping as one alternative proposed to complement the C1 highway.

Similarly, to strengthen links with key trading partners in North America and Europe it is essential to develop corridors C3, C4, C5 and C6 linking Atlantic coast ports in Honduras and Guatemala (Puerto Cortés and Santo Tomás de Castilla) with ports at the northern end of the region's Pacific coastline (Puerto Quetzal, San Lorenzo and Acajutla) Plus, the proposed deep-water port at Bluefields on Nicaragua's Atlantic coast (C7) will create demand in the medium term.

Corridor C2 is designed to serve as an alternative route to C1, as well as to spur development in inland areas of the region. Having this second route will increase the redundancy of land transport across Central America and give producers in less developed areas better access to markets. C2 contributes to improving the competitiveness of these regions with great production potential.

In recent years C3 has played an increasingly relevant role in land trade with Mexico, becoming the gateway connecting the region with North America. Increasing the capacity and speed of transport along C1 and C3 is a key issue. The C3 corridor runs from El Amatillo border crossing between El Salvador and Honduras to La Mesilla border crossing between Mexico and Guatemala. As such, upgrades to the corridor will provide an alternative from Guatemala to C1, as well as a connection with Atlantic ports.

Corridors connecting the two oceans (C4, C5, C6, C7, C8, C9, C10 and C11) are essential to reduce export, import and distribution costs of several commodities from both coasts. These connections have been visualized in a multimodal manner, improving the quality of the road system, but also renovating railway systems and creating connections with airports and ports. Promoting industrial development along these corridors will further contribute to the economic development of the entire region.

Following is a detailed overview of each strategic corridor, including infographics detailing how each corridor contributes to the strategic objectives described in Chapter 3, plus a datasheet, a list of specific corridor projects and maps.



Highways, Guatemala.



Panama Canal, Panama.



Pacific Corridor #1

Tecún Umán Border Crossing (GT)
Panama City (PA)



C1 Pacific Corridor - Development Strategies

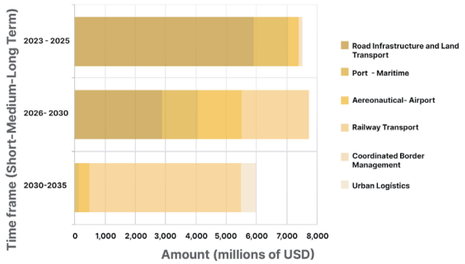
Amount of investment (millions USD at 2023 rates)

- 2023 - 2025: **7,054**
- 2026 - 2030: **7,379**
- 2031 - 2035: **5,988**

Strategic Objetives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional intermodal transport system.	• Increase transport capacity, travel speed and safety, making C1 the first trunk corridor running across all of Central America. • Develop feeder roads from C1 corridor to inland areas to increase the corridor's service coverage. • Develop and maintain Short Sea Shipping (SSS) services as a complementary transport route to C1 corridor. • Connect northern region (Guatemala & El Salvador) by railway with Mexico to strengthen C1 corridor. Restore existing tracks on Guatemala-Mexico and Guatemala-El Salvador borders, and build cargo transfer terminals. • Improve and develop several passenger and cargo airports in C1 Corridor; provide explosives detection equipment (EDS) at airports in El Salvador, Costa Rica and Panama. • Reconstruct several bridges along the C1 corridor to improve connectivity and travel times. • Develop, promote and implement a cargo sharing information mechanism to avoid empty return trips.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop road network that contributes to strategic spatial development along C1 corridor, such as Gulf of Fonseca, Logistics Activities Zones (LAZs) in nine locations, Special Economic Zones (SEZ) in 37 locations and tourism development in 28 destinations, plus related sustainable economic activities. • Continue to expand capacity and improve cargo handling efficiency at key Pacific coast ports. • Build and put into operation new airport in La Unión to improve air connectivity in the eastern region of El Salvador. • Rehabilitate railways in Guatemala and El Salvador to improve cargo transport and reduce traffic congestion on C1 Corridor. • Improvement tertiary road network to increase rural area access to market opportunities. • Promote development of agri-centers and agricultural or livestock supply centers.
3. Increase the efficiency and quality of transport, mobility, and intraregional logistics, by improving infrastructure and related services, as well as implementing common, integrated, and efficient in border crossings.	• Increase border efficiency across the region to speed-up border crossing times. Modernization should include construction of additional lanes, parking areas, logistics facilities, etc. • Develop large-scale distribution centers (truck terminals) along the C1 corridor to support the cargo transport industry. • Create facilities like Japan´s Michi-no-Eki rest areas along C1 corridor to provide drivers with rest areas and safe driving information. Plus, make local products available, contributing to the economy of rural areas. • Build truck terminals in metro areas of Guatemala City/Escuintla, San Salvador, Managua and Panama City to ease urban traffic.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Develop - without delay – ring roads and bypasses in metro areas of Guatemala City/Escuintla, San Salvador, Managua, San José and Panama City, to reduce traffic congestion caused by cargo vehicles in cities. • Develop and implement Short Sea Shipping routes (SSS) and promote their efficient use, to reduce highway congestion in the main Central American road corridors. • Formulate Urban Logistics Master Plan for Panama City to connect production, logistics and delivery zones and facilitate the entire distribution process.

C1 Pacific Corridor

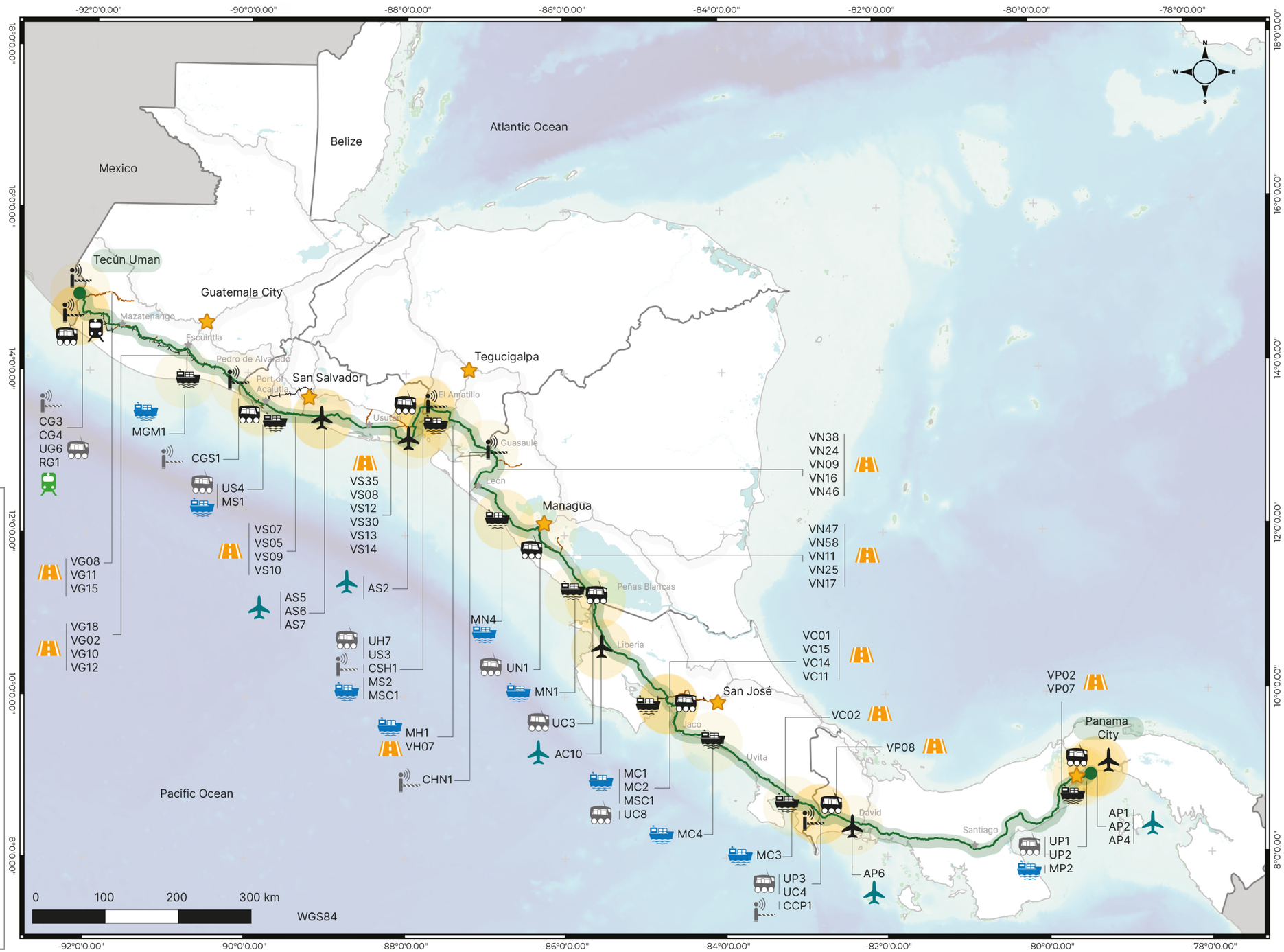
Starts: Tecún Umán, Guatemala
Ends: Panama City, Panama
Section length: 2,181 km
Projects: 86
Map 10
Source: JST.



Graph 5: C1 Amount of investment.
Source: JST.

Legend

- Pacific Corridor -C1-
- Other logistic corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C1 PacificCorridor

Guatemala/Mexico (GT-MX)- Panama (PA)

Description

C1 is an international trunk corridor that runs north-south along the Pacific coast of Central America from the Tecún Umán border crossing (MX-GT) to Panama City (PA). The main cities of Central America are located near this corridor, except Honduras. This corridor is the engine of the Central American economy connecting with the Panama Canal, a world trade maritime route.

Cargo movement

- It is a main route for the daily import of goods to the Central American countries via the Tecún Umán border between Mexico and Guatemala.
- There is chronic traffic congestion at the Pedro de Alvarado / La Hachadura border between Guatemala and El Salvador.
- Puerto Quetzal is a gateway for the export of sugar and the import of oil, corn, among other products to the northern region and connects with the interoceanic corridor (C3), Puerto Quetzal – Puerto Cortés.
- Sugar is the main export of the Ports of Corinto (NI), Acajutla, and La Unión (SV), and oil and cereal the main import commodities.
- There have been efforts to activate the Port of La Unión, an important infrastructure project on the Pacific coastline of El Salvador.
- The Port of Corinto is the main trading port of Nicaragua and the second most important cruise ship port.
- The port of San Lorenzo, Honduras' gateway to the Pacific Ocean, serves as a base for the export of iron oxide and sugar, as well as imports of oil and automobiles. San Lorenzo is connected to Puerto Cortés through interoceanic corridor (C5).
- The highway between Jícaro Galán and Guasaule is deteriorating.
- Bananas are exported from the Port of Caldera in Costa Rica, and imports include crude oil and construction materials.
- There has been significant progress in developing container terminals on the outskirts of Panama City.

Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km)(projected)

Corridor length (km) (along highways): **2,181km**
Length of Central American highways:
CA-1: **1,043km** | CA-2 **599km** | CA-3 2 **239km** | CA-12 **3km**
Volume of road traffic (UVP-km./day):
10.4 (2021) | 19.3 (2035)
AAGR 13%
Length

9,1 million (2021)
10,3 million (2035)
0.9% AAGR
Population

Escuintla, San Salvador, San Miguel, Choluteca, León, Managua, Liberia and Panama City
Main cities

2 (SV) | 12 (CR)
Protected areas

5 (GT) | 5 (SV) | 3 (HN) | 5 (NI) | 5 (CR) | 5 (PA)
International Tourist Destinations

2 (GT) | 5 (SV) | 21 (NI) | 2 (CR) | 7 (PA)
Number of Special Economic Zones
Number of SEZs

Intraregional truck terminals (Projected)
1 (GT) | 1 (NI) | 1 (PA)
Intraregional Passenger Bus Terminals
4 (NI) | 1(PA)
Terminals

12 ports in total
7 main seaports
Seaports and airports

San Óscar Arnulfo Romero y Galdámez International Airport:
3,7 million in 2019
Augusto C. Sandino International Airport: 1,1 million in 2019
Tocumen International Airport: 16 million in 2018
Annual passengers

Tecún Umán (GT) | Pedro de Alvarado / La Hachadura (GT - SV) | El Amatillo (SV - HN) | Guasaule (HN - NI) | Peñas Blancas (NI - CR) | Paso Canoas (CR - PA).
Border crossings

Infographic 1: C1 Datasheet.
Source: JST

Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Puerto Quetzal	4,162	9,042	5	14.5
Port of Acajutla	1,427	3,296	8	12.5
Port of La Unión	0	7	2	8
Port of San Lorenzo	131	1,126	2	9
Port of Corinto	1,252	2,714	4	13.1
Port of Caldera	1,866	2,808	4	13
Port of Balboa	14,866	481	10	16.7

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VC01		N1: road development: Barranca - Limonal - Cañas
2	VC02		N2: road development: Palmar Norte - Paso Canoas
3	VC11		N27: road widening: San José - Caldera
4	VC14		Road segment rehabilitation Pozón - Quebrada Ganado
5	VC15		N1: road development: San Ramón - Barranca (development of third lane)
6	VS04		CA-2: reconstruction of Melara bridge (damaged by Hurricane Ida in 2009)
7	VS05		CA-2 West: road widening, La Hachadura - Acajutla (CA-12 South, partial)
8	VS07		CA-2: Manuel José Arce Bridge (La Hachadura Border)
9	VS08		CA-2: total widening of the corridor to four lanes (or some sections with a third lane): from Zacatecoluca to La Unión, 70 kilometers approx. (east)
10	VS09		CA-2: widening of the corridor to four lanes or a third lane, Comalapa - Acajutla section (56 km)
11	VS10		CA-2: eastern segment of La Libertad bypass road
12	VS12		New design: El Delirio - El Carmen (opening of intersection CA-2 with CA-1)
13	VS13		CA-1 East: widening to four lanes Sirama - El Amatillo: Sirama (La Unión) – Pasaquina section
14	VS14		CA-1 East: widening to four lanes Sirama - El Amatillo: Pasaquina - El Amatillo section (10 km)
15	VS30		CA-1 East: widening to four lanes, San Miguel eastern exit - Sirama (36 km)
16	VS35		RN-14 South: road improvement El Triunfo (CA-1 East) - Santiago de María - Usulután (CA- 2 East)
17	VG02		CA-2 West: construction of bypass road - Mazatenango - Cuyotenango - San Bernardino
18	VG08		RN-1: Road improvement El Carmen border - Quetzaltenango
19	VG10		CA-2 East: road improvement Escuintla - Taxisco - El Obraje - Pedro de Alvarado
20	VG11		CA-2 West: road improvement Escuintla - Sta. Lucía Cotzumalguapa - Mazatenango - Retalhuleu - Tecún Umán/El Carmen
21	VG12		Cocales bypass road
22	VG15		San Sebastián – Retalhuleu bypass road
23	VG18		Ciudad Cuyotenango ring road – 2 lanes

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
24	VH07		CA-1: Reconstruction of Guacirope Bridge
25	VN09		R_IW2: Improvement (expansion): León-Chinandega (NIC-12A)
26	VN11		R_IW6: Improvement (expansion): Guanacaste-Nandaime-Rivas junction (NI-2)
27	VN16		Expansion of Managua-Chinandega corridor
28	VN17		Nandaime-Peñas Blancas expansion
29	VN24		Chinandega Ring Road
30	VN25		Rivas Ring Road
31	VN38		Widening of El Guasaule border crossing
32	VN46		Segment rehabilitation: Villa El Carmen (5.65 km after) - INCAE entrance (3.75 km before)
33	VN47		Diriamba Ring Road - 2 lanes
34	VN58		Improvement of Nandaime-Masaya Ring Road
35	VP02		N1: Highway expansion: Corridor 1 (6 km) from Playas Corridor (La Chorrera-San Carlos) (6 lanes, overpass + highway expansion)
36	VP03		N1: road rehabilitation and widening: Las Américas Bridge - Arraiján (8 lanes)
37	VP06		N1: development of alternate road to Las Playas Corridor: Howard - Veracruz - Vacamonte - Chorrera - Sajalices
38	VP07		Design and construction of fourth bridge over Panama Canal
39	VP08		Design/construction for rebuild/widening of La Concepción (CPA)-Cuesta Piedra-Volcán

Port-Maritime Axis

	P/ID	Country	Project
40	MCA4		Short Sea Shipping (SSS) Project
41	MC1		Port of Caldera expansion
42	MC2		Reinforcement of Port of Caldera waterfront
43	MC3		Port of Golfito improvement
44	MC4		Port of Quepos improvement
45	MS1		Development of the Port of Acajutla
46	MS2		Development of the Port of La Unión
47	MH1		Expansion of the Port of San Lorenzo
48	MN2		Development of cruise-ship terminal in Port of San Juan del Sur
49	MN4		Improvements to Port of Sandino
50	MP2		Development of Panama Canal container terminal
51	MGM1		Vessel service between Puerto Quetzal and Chiapas (SSS initiative)
52	MSC1		Ferry service between La Unión and Caldera (SSS initiative)

Aeronautical-Airport Axis

	P/ID	Country	Project
53	AC10		Master Plan project at Daniel Oduber Quirós Int'l Airport in Liberia
54	AC11		Development of cargo terminal at Daniel Oduber Quirós Int'l Airport in Liberia
55	AS2		La Unión: construction, management, operation and maintenance of new S5 airports
56	AS5		Óscar Arnulfo Romero y Galdámez Airport: passenger terminal development and airside, in four phases
57	AS6		Óscar Arnulfo Romero y Galdámez Airport: modernization and operation of cargo terminal
58	AS7		Óscar Arnulfo Romero y Galdámez Airport: improve aviation safety regulations with EDS
59	AP1		Tocumen International Airport: development of Terminal 2, cargo warehouse and duty-free zone
60	AP2		Tocumen International Airport: development of 3rd runway, passenger terminals 3 and 4
61	AP4		Tocumen International Airport: improve aviation safety regulations with EDS
62	AP6		Enrique Malek International Airport: develop new cargo warehouse
63	RC11		Pacific Train Project (Puntarenas-Port of Caldera-Ciruelas)

Railway Transport Axis

	P/ID	Country	Project
64	RS2		Railway rehabilitation (San Salvador-San Juan Opico-Sonsonate-Acajutla)
65	RS5		Railway development (Acajutla-Pedro de Alvarado)
66	RG1		Border development with Mexico (rehabilitation of border bridge, development of Tecún Umán container terminal)
67	RG3		Railway rehabilitation (Tecún Umán - Mazatenango - Escuintla, including freight transfer terminal (rail-to- trucks) at Tecún Umán border crossing
68	RG9		Railway development (Escuintla - Pedro de Alvarado customs facilities)



Guatemala - Panama.

Coordinated Border Management Axis

	P/ID	Country	Project
69	CG3		El Carmen (GT-MX): border modernization
70	CG4		Tecún Umán (GT-MX): border modernization
71	CCP1		Paso Canoas (CR-PA): border integration (single window)
72	CGS1		Pedro Alvarado (GT) / La Hachadura (SV): border modernization (single window) and binational bridge development
73	CHN1		Guasaule (HN-NI): border modernization
74	CNC1		Peñas Blancas (NI-CR): border integration (single window)
75	CSH1		El Amatillo (SV-HN): border integration (single window)

Urban Logistics Axis

	P/ID	Country	Project
76	UC3		Peñas Blancas: development of Logistics Activities Zone
77	UC4		Paso Canoas: development of Logistics Activities Zone
78	UC8		Port of Caldera and Central Valley: development of Logistics Activities Zone
79	US3		El Amatillo: development of Logistics Activities Zone
80	US4		Port de Acajutla: development of Logistics Activities Zone
81	UG6		Tecún Umán: development of Logistics Activities Zone
82	UH7		La Alianza - Goascorán: development of Logistics Activities Zone
83	UN1		Managua: development of truck terminal
84	UP1		Panama City: development of truck terminal
85	UP2		Panama City: Urban Logistics Master Plan
86	UP3		Paso Canoas: development of Logistics Activities Zone

Table 19: Projects per Axis C1. Source: JST.





Panama Canal, Panama.



Interior Corridor #2

El Ceibo Border Crossing (SV-HN)
Chiriquí (PA)



C2 Interior Corridor - Development Strategies

Amount of investment (millions USD at 2023 rates)

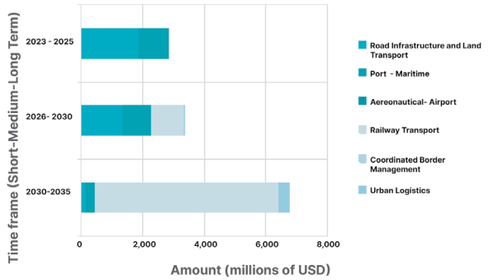
- 2023 - 2025: **2,855**
- 2026 - 2030: **3,356**
- 2031 - 2035: **6,765**

Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional intermodal transport system.	• Improve the C2 corridor by increasing transport capacity and travel speeds to serve as an alternative to the C1 corridor in the north-south direction. • Develop disaster-resilient infrastructure and Business Continuity Plans (BCP) for logistics nodes such as ports and airports located along the corridor. • Promote a port alliance in the Gulf of Honduras (Puerto Cortés, Puerto Barrios, and Port of Santo Tomás de Castilla) to complement infrastructure and multimodal services in the region. • Expand / rehabilitate four road segments along the corridor in Nicaragua that contribute to the region's productive activities. • Highway rehabilitation, expansion, and maintenance in Honduras and Guatemala. • Rehabilitate and expand the railroad system to enable cargo transport at a lower cost
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Strengthen links with Mexico, especially Tehuantepec Trans-isthmus Corridor, providing access to markets in Asia (via Puerto Salina Cruz) and N. America (via Coatzacoalcos) using Short Sea Shipping to U.S. Gulf of Mexico ports. • Develop SSS route from Santo Tomás de Castilla (Guatemala) to ports of Progreso and Veracruz in Mexico. • Improve access from productive areas to banana and pineapple export ports. • Improve bridges and road sections in Honduras and Guatemala. • Improve links between SEZs and export ports for strategic products such as textiles, vehicle parts and precision machinery. • Rehabilitate 12 bridges along the Limón-Sixaola Highway and expand the Santa Fe-San Pancho Bridge to facilitate transportation across the borders between Nicaragua, Costa Rica and Panama. • Develop and rehabilitate rail system along the Interior Corridor including four phases of the Electric Freight Train of Limón Project (TELCA) in Costa Rica. • Develop railway connections between Puerto Cortés and ports in Guatemala.
3. Increase the efficiency and quality of transport, mobility, and intraregional logistics, by improving infrastructure and related services, as well as implementing common, integrated, and efficient in border crossings.	• Develop railway and Inland Container Depot (ICD) in northern Honduras to reduce customs processing times at the port. • Continue to expand capacity and improve efficiency of four major ports on the Caribbean side, including the development of Logistics Activities Zones (LAZ), construction of cargo and container terminals, plus access roads to facilitate exports of major commodities such as bananas, pineapples, etc. • Urgently modernize the five border crossings between Guatemala, Honduras, Nicaragua, Costa Rica and Panama to reduce crossing times, plus building Logistics Activities Zones. • Develop four road segments in Costa Rica's Limón and Alajuela provinces, and one segment in Chiriquí province in Panama to facilitate transport of products originating in these regions.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Mitigate traffic congestion in major cities along the corridor such as San Pedro Sula, Tegucigalpa, Managua, Flores, El Petén, San José and Puerto Barrios/Santo Tomás de Castilla complex in Izabal, Guatemala, by developing ring roads with truck terminals. • Upgrade San Pedro Sula Airport and Mundo Maya Airport in Santa Elena, El Petén, Guatemala.

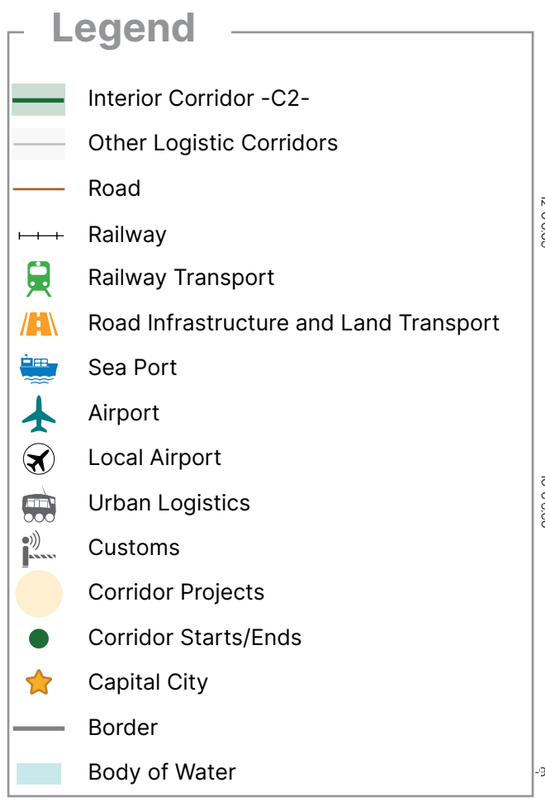
C2 Interior Corridor

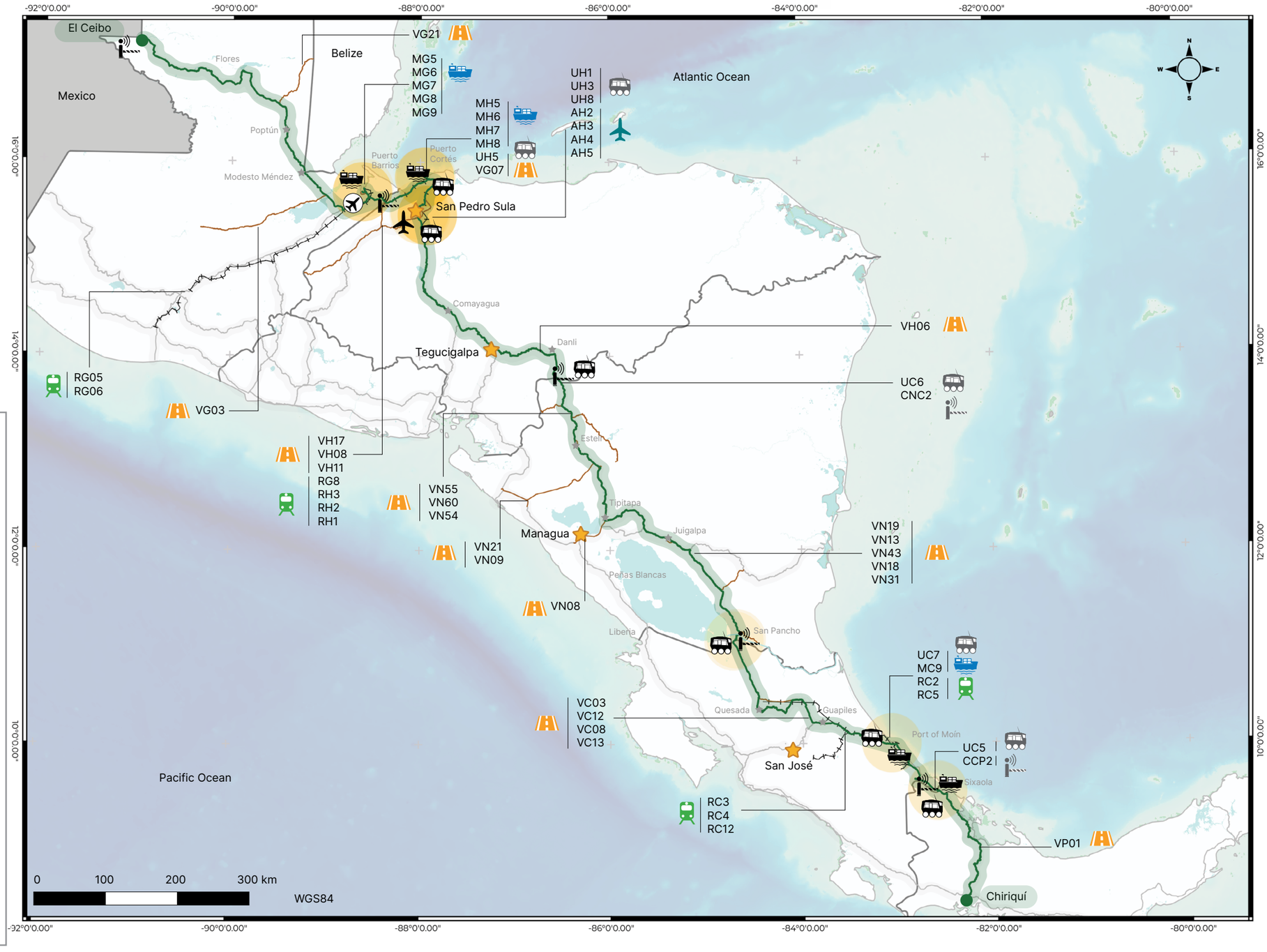
Stars: El Ceibo border crossing (GT-MX)
Ends: Chiriquí (PA)
Section length: 2,405 km
Projects: 66
Map 11

Source: JST.



Graph 6: C2 Amount of investment.
Source: JST.





C2 Interior Corridor

Guatemala/Mexico (GT-MX) - Panama (PA)

Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km) (projected)

Description

C2 is an international corridor that crosses the interior of Central America from north to south connecting with the Atlantic coast from El Ceibo border crossing (MX-GT) to Chiriquí (PA). This corridor connects the ports located on the Atlantic coast of Guatemala (Santo Tomás de Castilla and Puerto Barrios) and Honduras (Puerto Cortés) with El Espino and Las Manos border crossings, connecting main cities in Nicaragua such as Estelí, passing through the central region of Nicaragua and the main eastern ports of Costa Rica (Limón, Moín) with the Pacific Corridor in Chiriquí, Panama. From the Atlantic Ports of Honduras and Guatemala, C2 is connected to the North American market by means of El Ceibo border crossing, at which point connects by road with Coatzacoalcos and the Trans-isthmus Corridor of Tehuantepec in México. At this point there is a connection with US ports on the Gulf of Mexico by means of SSS or rail transshipping vessels.

Cargo movement

- Puerto Barrios and the Santo Tomás de Castilla are coffee and banana export ports.
- Puerto Cortés is an export port for bananas and textile products from San Pedro Sula's free trade zones.
- The ports of Limón/Moín are used for banana and pineapple exports and iron imports. The railroad is used by fruit exporters and iron importers.

Corridor length (km) (along highways): **2,405km**
Length of Central American highways: CA-1: **250km** | CA-5 **293km** | CA-6 **165km** | CA-9 **51km** | CA-13 **304km**
Volume of road traffic (UVP-km./day):
9.3 (2021) | 16.7 (2035)
AAGR 13%
Length

5,3 million (2021)
6,3 million (2035)
1.3% AAGR
Population

Flores, San Benito, Santa Elena (El Petén), Puerto Barrios, Puerto Cortés, San Pedro Sula, Tegucigalpa, Estelí, Limón, David
Main cities

8 (GT) | 8 (HN) | 2 (NI) | 4 (CR)
Protected areas

366 km (GT), 149 km (HN), 293 km (CR)
Railway length (km) (projected)

4 (GT) | 5 (HN) | 4 (NI) | 3(CR) | 2(PA)
International Tourist Destinations

18 (GT) | 5 (SV) | 21 (NI) | 2 (CR) | 7 (PA)
Number of Special Economic Zones
Number of SEZs

El Ceibo (MX-GT) | Corinto (GT-HN) | Las Manos (HN-NI) | San Pancho/Tablillas (NI-CR) | Sixaola/Guabito (CR-PA)
Border crossings

Intraregional truck terminals (Projected) 2 (HN)
Intraregional Passenger Bus Terminals 4 (HN)
Terminals

8 ports in total
4 main seaports
Seaports and airports

Palmerola International Airport: No data available
Tocotín International Airport: 0,7 million in 2019
Ramón Villeda Morales International Airport: 1,1 million in 2019 Mundo Maya International Airport.: 43,502
NOTE: international flights were relocated from Toncontín to Palmerola in 2019
Annual passengers

Infographic 2: C2 Datasheet.
Source: JST

Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Puerto Barrios	4,247	577	3	12
Port of Santo Tomás de Castilla	3,941	4,819	4	11
APM Terminals Moín	9,670	0	6	14.5
Port Complex Limón/Moín	713	2,931	6	10.5

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VC03		N35: road development - San Carlos: Sifón - Abundancia - Florencia Section
2	VC08		N32: road development: Y Griega Guápiles - Limón (R 4 and R 32)
3	VC09		N35: road development: Tablillas - Florencia
4	VC12		Muelle - Y Griega (Río Frío Intersection)
5	VC13		Limón - Sixaola (road improvement, 8 main bridges + 4 bridges)
6	VG03		RN-7: Huehuetenango - Río Dulce road improvement
7	VG07		CA-13: road improvement between Entre Ríos border - Port of Santo Tomás de Castilla
8	VG21		CA-13: road improvement between Melchor de Mencos border - Morales (Port of Santo Tomás de Castilla)
9	VG23		Bypass road in Santo Tomás de Castilla
10	VH01		CA-5 Norte: rehabilitation / construction Tegucigalpa - Puerto Cortés highway
11	VH06		CA-6: rehabilitation / construction Tegucigalpa – Danlí highway
12	VH08		CA-4: widening to four lanes, Chamelecón - La Entrada - Copán Ruinas - El Florido
13	VH10		CA-5 y CA-13: rehabilitation and construction of access and exit bridges to and from Puerto Cortés
14	VH11		CA-5: development of San Pedro Sula bypass road
15	VH17		CA-4: Desarrollo vial alternativo a CA-4: Quimistán - Corinto



El Ceibo Border Crossing. Guatemala-Mexico.

Road Infrastructure & Land Transport Axis

	P/ID	Country	Project
16	VN08		R_PR1: Construction of Nejapa - Ticuantepe – Tipitapa Highway
17	VN09		R_IW2: improvement (extension): León - Chinandega (NIC-12A)
18	VN13		R_IR: Road rehabilitation: Lovago - Pájaro Negro
19	VN18		Rehabilitation of Acoyapa - San Pancho road section
20	VN19		Rehabilitation of Acoyapa - San Benito section
21	VN21		Improvement of Highway 26 (Telica - San Isidro)
22	VN27		Juigalpa Bypass
23	VN29		Estelí Ring Road
24	VN31		La Azucena - Boca de Sábalos
25	VN42		Construction of bypass road in Sébaco
26	VN43		Rehabilitation of El Pájaro Negro - El Triunfo junction
27	VN44		Expansion of the Santa Fe - San Pancho Bridge
28	VN54		Improvement of the Sébaco - Yalagüina section
29	VN55		Improvement of Yalagüina - Las Manos and Yalagüina - El Espino sections.
30	VN60		Matagalpa - Jinotega - Condega road improvement (3)
31	VP01		N21/10/11: Rehabilitation of Pan-American Highway: Gualaca-Chiriquí Grande, Chiriquí & Bocas del Toro provinces

Port–Maritime Axis

	P/ID	Country	Project
32	MC9		Construction of Moín port container terminal
33	MG5		Expansion/improvement of facilities in Port of Santo Tomás de Castilla
34	MG6		Development of liquid and solid bulk terminals in Santo Tomás de Castilla
35	MG7		Construction of cruise terminal in Santo Tomás de Castilla
36	MG8		Improvements to access navigation channel and basin in Santo Tomás de Castilla
37	MG9		Capacity expansion at Puerto Barrios
38	MH5		Expansion of the Puerto Cortés container terminal
39	MH6		Improvements to the Puerto Cortés bulk terminal
40	MH7		Improvement and expansion of Puerto Cortés
41	MH8		Puerto Cortés: installation of a natural gas-powered electrical generation plant

Aeronautical–Airport Axis

	P/ID	País	Project
42	AH1		Introduction of electronic air waybill
43	AH2		Ramón Villeda Morales Int'l Airport: runway extension and expansion of passenger and cargo terminals
44	AH3		Ramón Villeda Morales Int'l Airport: improve aviation safety regulations with EDS
45	AH4		Ramón Villeda Morales Int'l Airport: TA to improve quality of airport service, transport operators/air cargo handling
46	AH5		Ramón Villeda Morales Int'l Airport: TA in airport operation and maintenance

Railway Transport Axis

	P/ID	País	Project
47	RC2		TELCA Project, Phase 1 (Moín - TCM JAPDEVA - Siquirres - Río Frío (GAM northern region)).
48	RC3		TELCA Project, Phase 2 (Río Frío - Chilamate)
49	RC4		TELCA Project, Phase 3 (Chilamate - San Carlos de Muelle)
50	RC5		TELCA Project, Phase 4 (TCM JAPDEVA - Valle de la Estrella)
51	RC12		Railway rehabilitation (Cartago - Siquirres)
52	RG5		Railway rehabilitation (Escuintla - Guatemala City)
53	RG6		Railway rehabilitation (Guatemala City-Zacapa-Los Amates-Morales-Entre Ríos-Puerto Barrios)
54	RG8		Railway development (Entre Rios - Corinto Customs)
55	RH1		Container port (dry port) in Potrerillos
56	RH2		Railway rehabilitation in Honduras (San Pedro Sula - Puerto Cortés)
57	RH3		Railway development (Puerto Cortés – Corinto border crossing)

Coordinated Border Management Axis

	P/ID	País	Project
58	CCP2		Sixaola (CR) / Guabito (PA): border modernization
59	CNC2		San Pancho (NI) / Las Tablillas (CR): border modernization

Urban Logistics Axis

	P/ID	País	Project
60	UC5		Sixaola: development of Logistics Activities Zone
61	UC6		Tablillas: development of Logistics Activities Zone
62	UC7		Moín: development of Logistics Activities Zone
63	UH1		San Pedro Sula: development of truck terminal
64	UH3		San Pedro Sula Metropolitan Area: Urban Logistics Master Plan
65	UH5		Puerto Cortés: development of Logistics Activities Zone
66	UH8		San Pedro Sula: development of Logistics Activities Zone

Table 20: Projects per Axis C1.
Fuente: JST.



Sea Port, Panama.



El Amatillo Border Crossing, El Salvador.



Pan- American Corridor #3

El Amatillo Border Crossing (SV-HN)
La Mesilla Border Crossing (MX-GT)

C3 Pan-American Corridor - Development Strategies

Amount of investment (millions USD at 2023 rates)

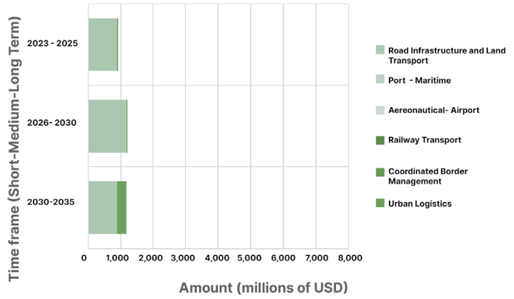
- 2023 - 2025: **913**
- 2026 - 2030: **1,188**
- 2031 - 2035: **1,180**

Strategic Objetives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Improve the C3 corridor by increasing capacity and travel speeds to serve as a north-south alternative to the C1 corridor. • Rehabilitate cargo warehouses and facilities at La Aurora International Airport. • Enhance connectivity to promote trade with Mexico and the U.S. via La Mesilla border crossing. • Facilitate agricultural trade growth from Guatemala to Central America, the Caribbean and southeast Mexico. • Promote agri-centers in western Guatemala and along the El Salvador border.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Improve access from productive areas to ports for agricultural exports (vegetables, fruits, coffee, etc.). • Improve connectivity between SEZs and major cities. • Improve access from productive zones to Central American road corridors via well-maintained tertiary networks with adequate logistics infrastructure.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Upgrade La Mesilla (GT-MX) and San Cristobal (GT-SV) border crossings, including parking and rest areas. • Identify road sections in poor condition and propose road maintenance, rehabilitation and expansion projects. • Identify required bypasses in cities such as Salcajá, Jutiapa, Mixco in Guatemala, and San Miguel in El Salvador. • Assess feasibility of the new border crossing at Jeréz (Guatemala - El Salvador). • Develop a passenger transfer center at Valle Nuevo - Las Chinamas border, including a large bus parking area on both sides of the border. Improve access to La Mesilla, Valle Nuevo - Las Chinamas and San Cristobal border crossings. • Assess potential for a logistics activity zone in El Amatillo.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Mitigate traffic congestion in metropolitan areas along the corridor (e.g., Guatemala City and San Salvador) by developing ring roads with truck terminals, as well as municipal urban logistics plans.

C3 Pan-American Corridor

Starts: El Amatillo Border Crossing (SV-HN)
Ends: La Mesilla Border Crossing (MX-GT)
Section length: 793 km
Projects: 36
Map 12

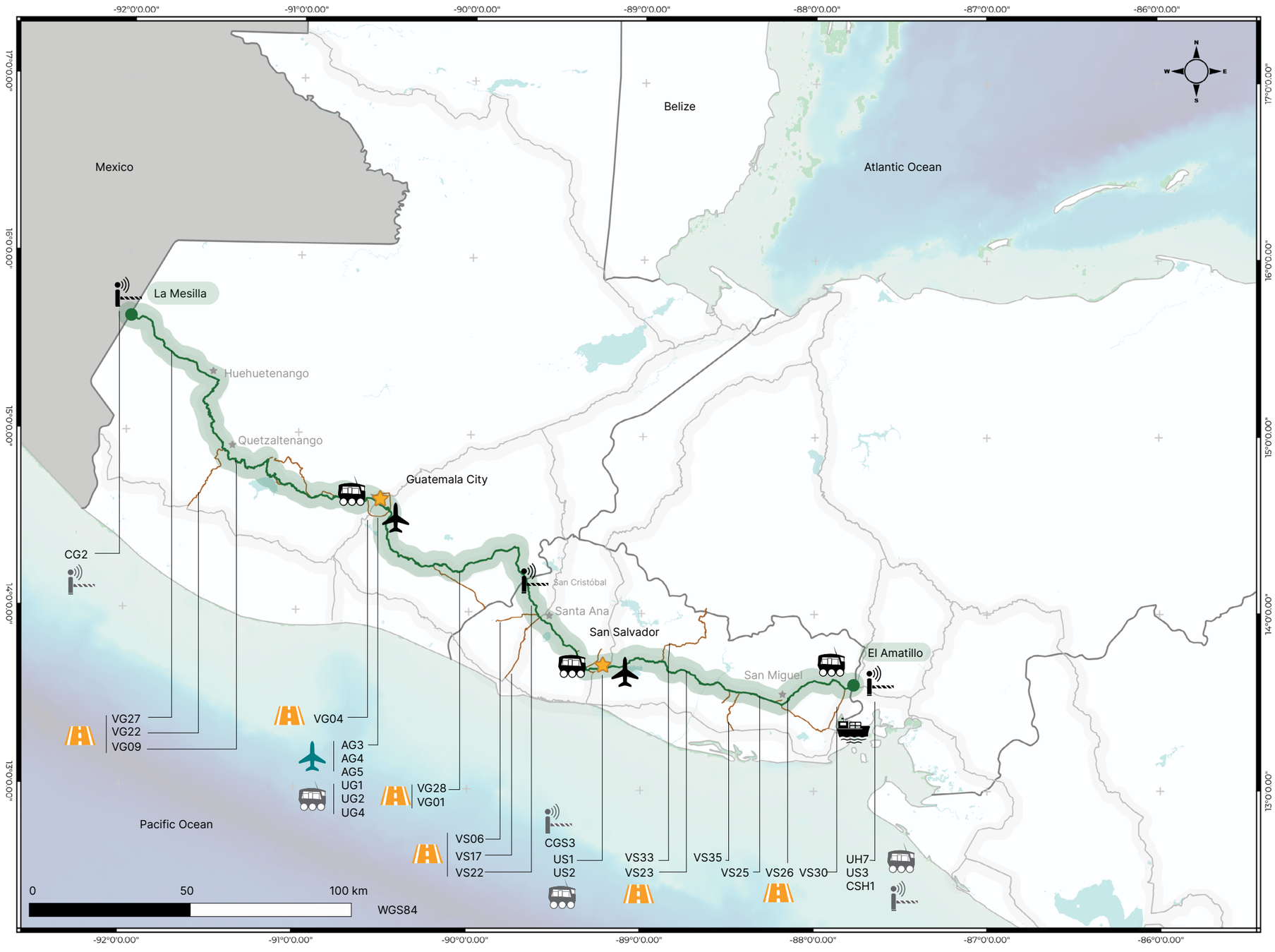
Source: JST.



Graph 7: C3 Amount of investment.
Source: JST.

Legend

- Panamerican Corridor -C3-
- Other Logistic Corridors
- Highway
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C3 Pan-American Corridor

El Salvador/Honduras (SV-HN)- Mexico/Guatemala (MX-GT)

Description

Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km)(projected)

C3 is a trunk corridor which runs from El Amatillo border crossing (SV-HN) to La Mesilla border crossing (GT-MX) connecting with the Pacific Corridor in La Unión, El Salvador. The capital cities of both countries are located along the corridor, as well as Quetzaltenango in Guatemala and two of the largest cities of El Salvador, Santa Ana, and San Miguel.

Cargo movement

- Daily goods such as food preparations and agricultural products, including fruits and vegetables are transported in this corridor.
- Heavy cargo traffic travels through the main metropolitan areas of Guatemala City and San Salvador, as several factories and free zones are on the outskirts of both cities.
- Fresh and high value products such as flour and vegetables are exported from La Aurora International Airport.

Corridor length (km) (along highways): **793km**
Length of Central American highways:
CA-1: **638km** | CA-4 **8km** | CA-7 **17km** | CA-12 **3km**
Volume of road traffic (UVP-km./day):
3.8 (2021) | 6.4 (2035)
AAGR 12%
Length

6,3 million (2021)
6,9 million (2035)
0.7% AAGR
Population

Huehuetenango, Quetzaltenango, Ciudad de Guatemala, Santa Ana, San Salvador, San Miguel.
Main cities

8 (GT) | 3 (SV)
Protected areas

6 (GT) | 3 (SV)
International Tourist Destinations

7 (GT) | 9 (SV)
Number of Special Economic Zones
Number of SEZs

Intraregional truck terminals (Projected) 1 (SV)
Intraregional Passenger Bus Terminals 3 (GT) | 3 (SV)
Terminals

La Mesilla (MX-GT) | San Cristóbal (GT-SV) | Valle Nuevo / Las Chinamas (GT-SV) | Jeréz (GT) | Chalchuapa (SV) | El Amatillo (SV-HN)
Border crossings

N/D
Seaports and airports

N/D
Railway length (km) (projected)

Infographic 3: C3 Datasheet.
Source: JST

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VS06		RN-13 West: road widening, Ahuachapán - Santa Ana (Escalante Bridge – Atiquizaya section)
2	VS11		CA-1 East: San Miguel bypass road
3	VS13		CA-1 East: widening to four lanes Sirama - El Amatillo: Sirama (La Unión)- Pasaquina section
4	VS14		CA-1 East: widening to four lanes Sirama - El Amatillo: Pasaquina - El Amatillo (10 km) section
5	VS15		CA-1 West and RN-7 North: Sitio del Niño overpass
6	VS17		CA-12 North: improvement to Acajutla-Anguiatú axis (main highway expansion Son-sonate-Anguiatú), Sonsonate - Santa Ana section
7	VS18		CA-8 West: Sacacoyo overpass
8	VS22		CA-1 West: road widening San Cristóbal - Santa Ana
9	VS23		CA-1 West: road widening San Vicente - Río Lempa (Cuscatlán bridge)
10	VS25		CA-1 East: widening of Cuscatlán bridge over Lempa river - San Miguel
11	VS26		CA-7 North and RN-18 East: road widening San Miguel - Pasaquina
12	VS28		Ring road development San Salvador west
13	VS29		Ring road development San Salvador south
14	VS30		CA-1 East: widening to four lanes, San Miguel eastern exit - Sirama (36 km)
15	VS33		RN-8 North and CA-4 North: road rehabilitation San Rafael Cedros - Sensuntepeque - La Integración Bridge (Honduras border) (72 km)
16	VS35		RN-14 Sur: road improvement El Triunfo (CA-1 East) - Santiago de María - Usulután (CA- 2 East)
17	VS37		"USU09S and USU25N: construction of transversal complementary road in Mercedes Umaña - Berlin - CA-2 East"
18	VG01		CA-1 East: Barberena - El Molino - Valle Nuevo road improvement
19	VG04		Ring road: construction of CA-1 East - CA-9 South junction
20	VG09		CA-1 West: Guatemala City - Cuatro Caminos, and RN-1 Cuatro Caminos, Quetzaltenango
21	VG22		RN-9 North / CITO 180: road improvement Gracias a Dios border- Quetzaltenango-Pacific Corridor (CA-1)
22	VG27		CA-1: section rehabilitation: La Mesilla - Huehuetenango
23	VG28		CA-1: section rehabilitation: Jutiapa border, Santa Rosa - Quesada

Aeronautical–Airport Axis

	P/ID	Country	Project
24	AG3		La Aurora International Airport: feasibility study on improvement of logistics automation equipment/procedures (warehousing, etc.)
25	AG4		La Aurora International Airport: cargo warehouse equipment/procedures rehabilitation
26	AG5		La Aurora International Airport: Airport operation TA (facility maintenance, ground handling, cargo handling, institutions, etc.).

Coordinated Border Management Axis

	P/ID	Country	Project
27	CG2		La Mesilla (GT-MX): Border modernization
28	CGS3		San Cristóbal (GT-SV): Border modernization and improved road access
29	CSH1		El Amatillo (SV-HN): Border modernization (single window)

Urban Logistics Axis

	P/ID	Country	Project
30	US1		San Salvador: Truck terminal development
31	US2		San Salvador Metropolitan Area: Urban Logistics Master Plan
32	US3		El Amatillo: Development of a Logistics Activities Zone
33	UG1		Guatemala City: Truck terminal development
34	UG2		Guatemala City Metropolitan Area: Urban Logistics Master Plan
35	UG4		Guatemala City: Development of a Logistics Activities Zone
36	UH7		La Alianza - Goascorán: Development of a Logistics Activities Zone

Table 21: Project per Axis C3.
Source: JST.



Puerto Quetzal, Guatemala.



Interoceanic Corridor #4

Puerto Quetzal (GT)
Puerto Cortés (HN)

C4 Interoceanic Corridor - Development Strategies

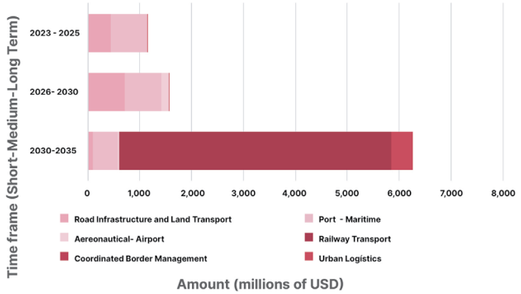
Amount of investment (million USD at 2023 rates)

- 2023 - 2025: **1,150**
- 2026 - 2030: **1,564**
- 2031 - 2035: **6,254**

Strategic Objetives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Develop a robust road network to transport heavy cargo such as sugarcane, bananas and fuel. • Improve the CA9 route by increasing transport capacity and travel speed. • Rehabilitate the railway connecting Guatemala's main ports on the Pacific coast with its Caribbean ports, plus develop the railway between Guatemala and Honduras' main Caribbean port in order to reduce highway traffic. • Improve the robustness/redundancy of the transport network by rehabilitating and reconstructing bridges in/out of Puerto Cortés, Honduras.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop Logistics Activities Zones to expedite import/export processes in the main ports of Guatemala and Honduras. • Build cruise ship terminal and improve navigation channel to Santo Tomás de Castilla; deepen harbor area in Puerto Quetzal. • Develop & continue improving/expanding container and bulk terminals in main ports of Guatemala and Honduras.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Expand and equip Guatemala's Puerto San José domestic cargo airport and La Aurora International Airport to handle air cargo more efficiently and securely. • Improve energy efficiency with a natural gas-powered generation plant in Honduras' main port. • Improve mobility of people, goods and services along the corridor by rehabilitating roads from El Rancho-Santo Tomás de Castilla to Puerto Quetzal, via Guatemala City. • Expand the C-50 corridor to four lanes.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Develop a ring road and truck terminals around metro area of Guatemala City, plus make an Urban Logistics Master Plan with solutions such as better links between production, logistics and delivery zones to facilitate the entire distribution chain. • Rehabilitate and build bridges in/out of Puerto Cortés, Honduras, to speed up exports and imports and improve transport times.

C4 Interoceanic Corridor

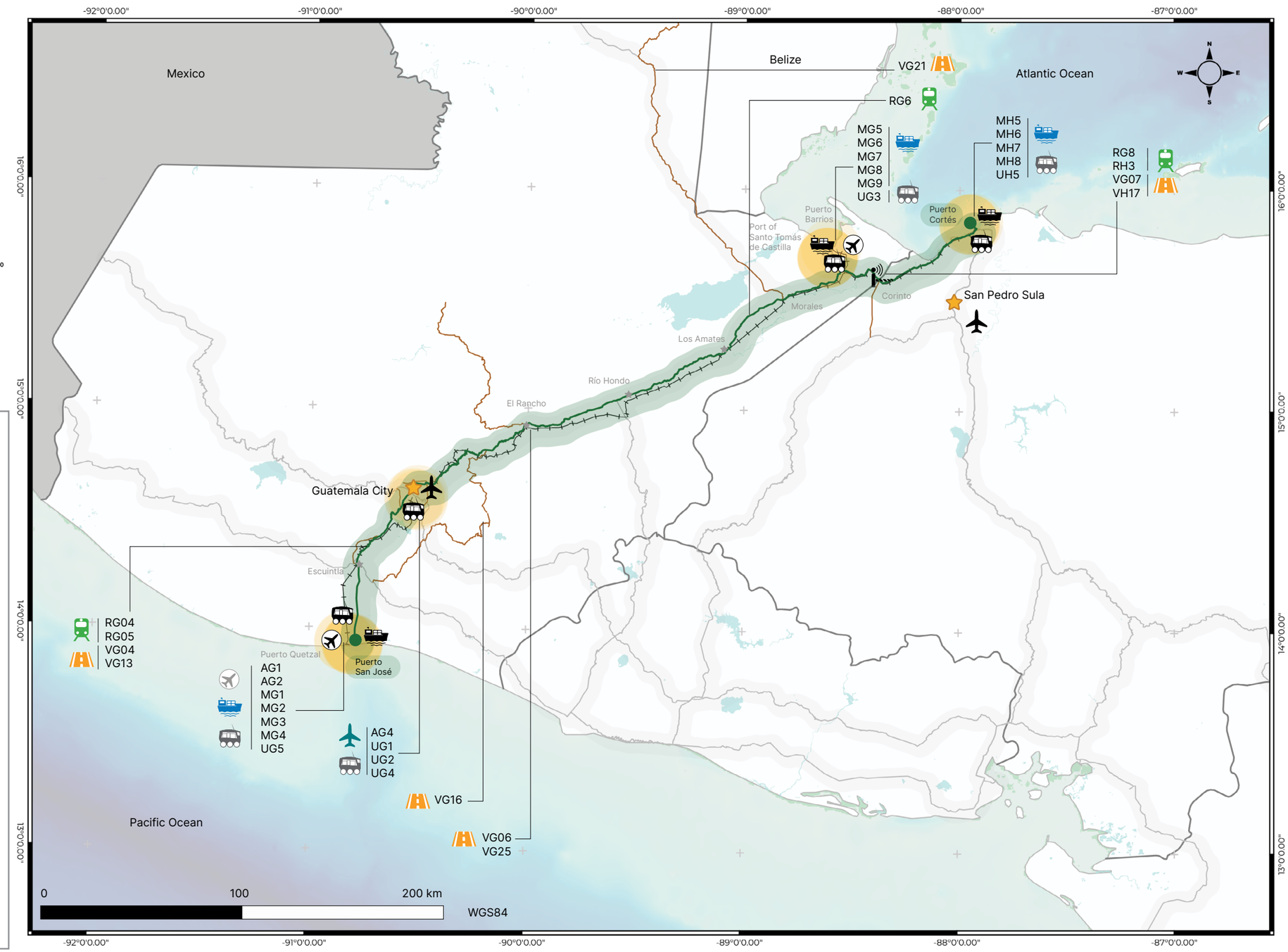
Stars: Puerto Quetzal (GT)
Ends: Puerto Cortés (HN)
Section length: 473 km
Projects: 36
Map 13
Source: JST.



Graph 8: C4 Amount of investment.
Source: JST.

Legend

- Interoceanic Corridor -C4-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Local Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water

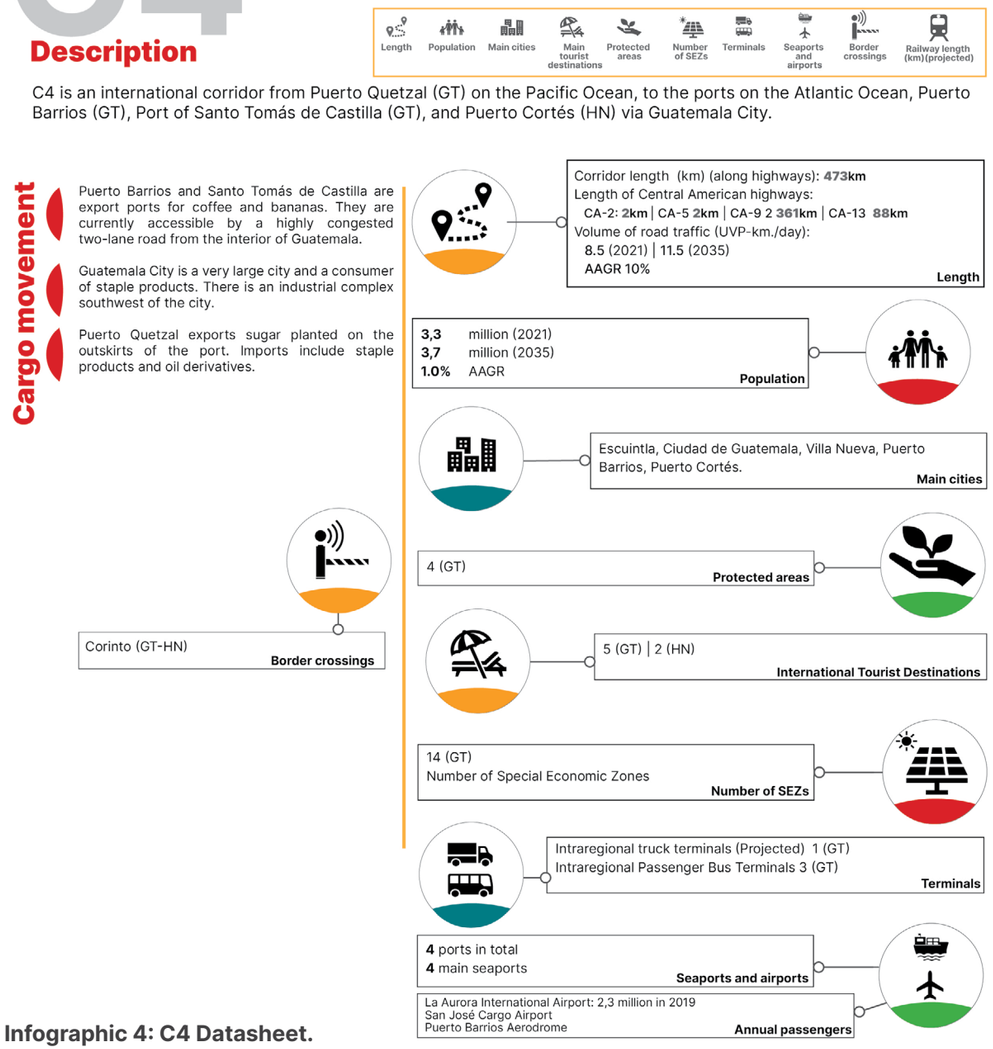


C4 InteroceanicCorridor

Guatemala (GT)- Honduras (HN)

Description

C4 is an international corridor from Puerto Quetzal (GT) on the Pacific Ocean, to the ports on the Atlantic Ocean, Puerto Barrios (GT), Port of Santo Tomás de Castilla (GT), and Puerto Cortés (HN) via Guatemala City.



Infographic 4: C4 Datasheet.
Source: JST

Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Puerto Quetzal	4,162	9,042	5	14.5
Puerto Barrios	4,247	577	3	12
Puerto Cortés	5,302	9,288	4	14

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VH10		CA-5 and CA-13: rehabilitation and construction of bridges to and from Puerto Cortés
2	VH17		CA-4: alternative road development to CA-4: Quimistán - Corinto
3	VG04		Metropolitan ring road: construction of CA-1 East - CA-9 South connection
4	VG06		CA-9 North: improvement of El Rancho – Port of Santo Tomás de Castilla road
5	VG07		CA-13: improvement of the Entre Ríos – Port of Santo Tomás de Castilla border road
6	VG13		CA-9 South: Guatemala City - Palín - Escuintla. Escuintla - Puerto Quetzal
7	VG16		C-50 four-lane highway development (Dry Corridor)
8	VG21		CA-13: improvement of the Melchor de Mencos - Morales border road (Port of Santo Tomás de Castilla).
9	VG25		CA-14: road improvement Flores - Cobán - Salamá - El Rancho

Port – Maritime Axis

	P/ID	Country	Project
10	MH5		Puerto Cortés container terminal expansion
11	MH6		Upgrade of Puerto Cortés bulk terminal
12	MH7		Puerto Cortés improvement and expansion
13	MH8		Puerto Cortés: installation of a natural gas power generation plant
14	MG1		Improvements to the commercial terminal of Puerto Quetzal
15	MG2		Deepening of maritime areas in Puerto Quetzal
16	MG3		Development of container terminal in Puerto Quetzal (Phase II)
17	MG4		Land development behind the port area in Puerto Quetzal
18	MG5		Expansion / improvement of facilities in Port of Santo Tomás de Castilla
19	MG6		Development of liquid and solid bulk terminals in Port of Santo Tomás de Castilla
20	MG7		Construction of cruise terminal in Port of Santo Tomás de Castilla
21	MG8		Improvements to the access navigation channel and basin in Port of Santo Tomás de Castilla
22	MG9		Capacity expansion of Puerto Barrios



Aeronautical – Airport Axis

	P/ID	Country	Project
23	AG1		Puerto San José: runway extension for CODE D/E type aircraft, free-trade zone facilities
24	AG2		Puerto San José Domestic Cargo Airport: airport expansion (airside and landside facilities and equipment)
25	AG4		La Aurora International Airport: cargo warehouse equipment refurbishment/procedures

Railway Transport Axis

	P/ID	Country	Project
26	RC10		Electric train, Route 5 (Ciruelas - El Coyol)
27	RH3		Railway development (Puerto Cortés – Corinto Border Crossing)
28	RG4		Railway development (Escuintla - Puerto Quetzal)
29	RG5		Railway development (Escuintla – Guatemala City)
30	RG6		Railway rehabilitation (Guatemala City - Zacapa - Los Amates - Morales - Entre Ríos - Puerto Barrios)
31	RG8		Railway development (Entre Ríos – Corinto Border Crossing)

Urban Logistics Axis

	P/ID	Country	Project
32	UH5		Puerto Cortés: Develop Logistics Activities Zone
33	UG1		Guatemala City: Develop truck terminal
34	UG2		Guatemala City metropolitan area: Urban Logistics Master Plan
35	UG3		Santo Tomás de Castilla/Puerto Barrios: Develop Logistics Activities Zone
36	UG4		Guatemala City: Develop Logistics Activities Zone
37	UG5		Puerto Quetzal: Develop Logistics Activities Zone

Table 22: Project per Axis C4. Source: JST.





Port of Acajutla.



Interoceanic Corridor #5

Port of Acajutla (SV) | Puerto Cortés (HN)

C5 Interoceanic Corridor - Development Strategies

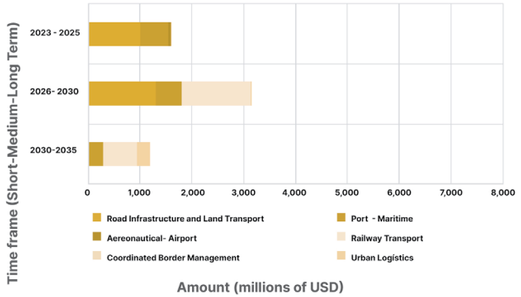
Amount of investment (millions USD at 2023 rates)

- 2023 - 2025: **1,602**
- 2026 - 2030: **3,145**
- 2031 - 2035: **1,197**

Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system	• Rehabilitate highways CA 4, CA 10, 4 LPC4: CA-4 to expedite transport of cargo and people in western Honduras and trade with Guatemala. • Rehabilitate railway between San Pedro Sula and Puerto Cortés to improve cargo transport and reduce highway traffic. • Renovate access bridges in Puerto Cortés. • Improve/expand Puerto Cortés, including container and bulk terminals and build natural gas power plant to improve speed, safety and economic/environmental efficiency.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop Logistics Activities Zones in Puerto Cortés with suitable infrastructure to improve all logistics processes, both domestic and international. • Develop five bypass roads along the corridor in Honduras and El Salvador and expand Troncal del Norte - Apopa - El Poy border crossing section to four lanes in order to save time, fuel and maintenance costs.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Renovate access bridges to Puerto Cortés. • Urgently modernize border crossings between Honduras and El Salvador to improve crossing times. • Improve/expand Puerto Cortés, including container & bulk terminals and build natural gas power plant in order to improve speed, safety and economic/environmental efficiency.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Prepare Master Development and Urban Logistics plans for San Salvador and San Pedro Sula with solutions such as improved routes and schedules for cargo providers operating in the corridor. • Develop truck terminals in San Salvador and San Pedro Sula to reap benefits such as efficiency and cost savings, etc.

C5 Interoceanic Corridor

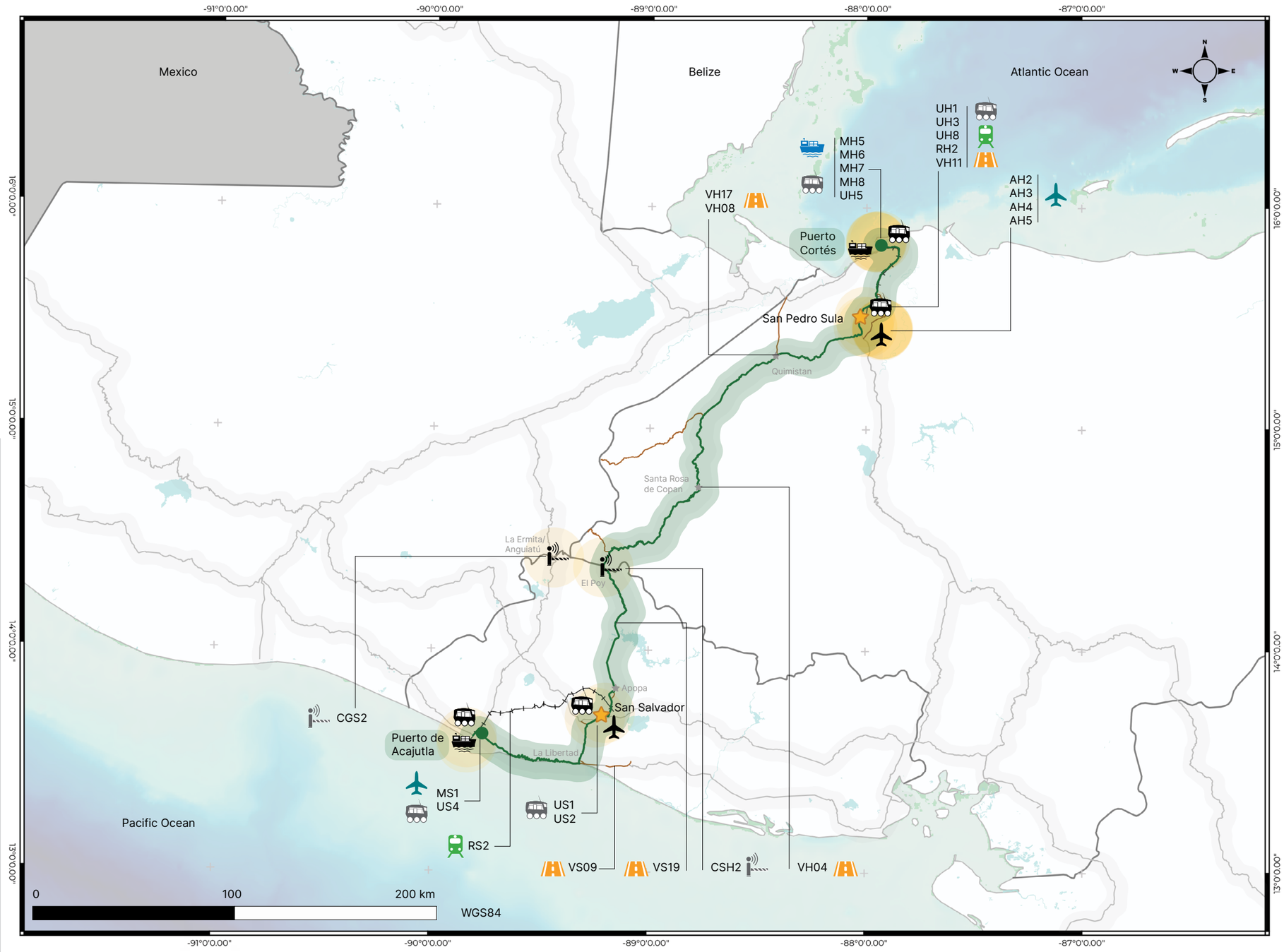
Stars: Port of Acajutla (SV)
Ends: Puerto Cortés (HN)
Section Length: 523 km
Projects: 31
Map 14
Source: JST.



Graph 9: C5 Amount of investment.
Source: JST.

Legend

- Interoceanic Corridor -C5-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C5 Interoceanic Corridor

El Salvador (SV)- Honduras (HN)

Description

Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km)(projected)

C5 is an international corridor connecting the Port of Acajutla (SV) in the Pacific Corridor with Puerto Cortés (HN) on the Interior Corridor through the border crossing post of El Poy (SV – HN).

Cargo movement

The Port of Acajutla exports sugar from neighboring areas and imports cereals and oil derivatives.

Puerto Cortés is a port specializing in exports of bananas and textile products from free zones and connects with the Port of Acajutla by road.

There are multiple textiles industries on the outskirts of San Salvador and San Pedro Sula.

Corridor length (km) (along highways): **523km**
Length of Central American highways:
CA-1: **4km** | CA-2 **81km** | CA-4 **368km** | CA-5 **64km** | CA-11 **40km** | CA-12 **3km** | CA-13 **2km**
Volume of road traffic (UVP-km./day):
2.5 (2021) | 5.2 (2035)
AAGR 15%
Length

3,4 million (2021)
3,7 million (2035)
1.0% AAGR
Population

San Salvador, San Pedro Sula
Main cities

1 (SV) | 4 (HN)
Protected areas

4 (SV) | 4 (HN)
International Tourist Destinations

4 (SV) | 10 (HN)
Number of Special Economic Zones
Number of SEZs

Intraregional Truck Terminals (Projected)
1 (SV) | 1(HN)
Intraregional Passenger Bus Terminals
3 (SV) | 1 (HN)
Terminals

3 ports in total
2 main seaports
Seaports and airports

San Óscar Arnulfo Romero y Galdámez International Airport:
3,7 million in 2019
Ramón Villeda Morales International Airport:
1,1 million in 2019
Annual passengers

El Poy (SV-HN)
Border crossings

92km (SV) | 50 km (HN)
Railway length (km) (projected)

Infographic 5: C5 Datasheet.
Source: JST

Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Port of Acajutla	1,427	3,296	8	12.5
Puerto Cortés	5,302	9,288	4	14

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VS09		CA-2: Widening of corridor to four lanes or a third lane, Comalapa – Acajutla section (56 km)
2	VS10		CA-2 Highway eastern section: La Libertad bypass road
3	VS16		CA-4 North: bypass road west of Apopa
4	VS19		CA-4 North: widening to four lanes Troncal del Norte - Apopa – El Poy border crossing (82 Km)
5	VS29		Development of San Salvador's southern ring road
6	VH04		CA-4: Santa Rosa de Copán - Nueva Ocotepeque / Nueva Ocotepeque - El Poy / CA-10: Nueva Ocotepeque - Agua Caliente
7	VH08		CA-4 widening to four lanes, Chamelecón - La Entrada - Copán Ruinas - El Florido
8	VH10		CA-5 and CA-13: Rehabilitation and construction of Puerto Cortés Access bridges
9	VH11		CA-5: development of San Pedro Sula ring road
10	VH17		CA-4: alternative road development to CA-4: Quimistán - Corinto

Port–Maritime Axis

	P/ID	Country	Project
11	MS1		Port of Acajutla development
12	MH5		Puerto Cortés container terminal expansion
13	MH6		Upgrade of Puerto Cortés bulk terminal
14	MH7		Puerto Cortés Improvement and expansion
15	MH8		Puerto Cortés: Instalación de una planta de generación de energía de gas natural

Aeronautical–Airport Axis

	P/ID	Country	Project
16	AH1		Introduction of electronic air waybill
17	AH2		Ramón Villeda Morales International Airport: runway extension, expansion of passenger and cargo terminal
18	AH3		Ramón Villeda Morales International Airport: improvement of safety regulations with EDS
19	AH4		Ramón Villeda Morales International Airport: TA to improve quality of service transport operators/ air cargo handling
20	AH5		Ramón Villeda Morales International Airport: TA in airport management and operation

Railway Transport Axis

	P/ID	Country	Project
21	RS2		Railway rehabilitation (San Salvador - San Juan Opico - Sonsonate - Acajutla)
22	RH2		Railway rehabilitation in Honduras (San Pedro Sula - Puerto Cortés)

Coordinated Border Management Axis

	P/ID	Country	Project
23	CGS2		La Ermita (GT) / Anguiatú (SV): border modernization (single window)
24	CSH2		El Poy: border modernization

Urban Logistics Axis

	P/ID	Country	Project
25	US1		San Salvador: Develop truck terminal
26	US2		San Salvador Metropolitan Area: Urban Logistics Master Plan
27	US4		Port of Acajutla: Develop Logistics Activities Zone
28	UH1		San Pedro Sula: Develop truck terminal
29	UH3		San Pedro Sula Metropolitan Area: Urban Logistics Master Plan
30	UH5		Puerto Cortés: Develop Logistics Activities Zone
31	UH8		San Pedro Sula: Develop Logistics Activities Zone

Table 23: Project per axis C5. Source: JST.



Port of Acajutla (SV) - Puerto Cortés (HN).





San Fernando de Omoa Fort, Honduras.



Interoceanic Corridor #6

Honduras

Port of San Lorenzo | Puerto Cortés



C6 Interoceanic Corridor - Development Strategies

Amount of investment (millions USD at 2023 rates)

- 2023 - 2025: **680**
- 2026 - 2030: **1,035**
- 2031 - 2035: **740**

Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Develop the San Pedro Sula-El Amatillo railroad project via Tegucigalpa to connect the main development poles of Honduras and reduce highway congestion. • Renovate access bridges to Puerto Cortés.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Improve the Port of San Lorenzo, which serves as a gateway for goods coming from Asia, the west coast of North America and South America.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Develop the railroad and Inland Container Depots (ICDs) in the northern region of Honduras to reduce customs clearance times at the port. • Expand the runway, cargo and passenger terminal at Ramón Villeda Morales International Airport which is the busiest cargo and passenger terminal in Honduras. • Rehabilitate the highway between Tegucigalpa and Puerto Cortés covering the country´s largest productive areas and improving the mobility of people, goods, and services.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Rehabilitate and build bridges in and out of Puerto Cortés and a ring road in San Pedro Sula to reduce traffic congestion in cities and improve transport times.

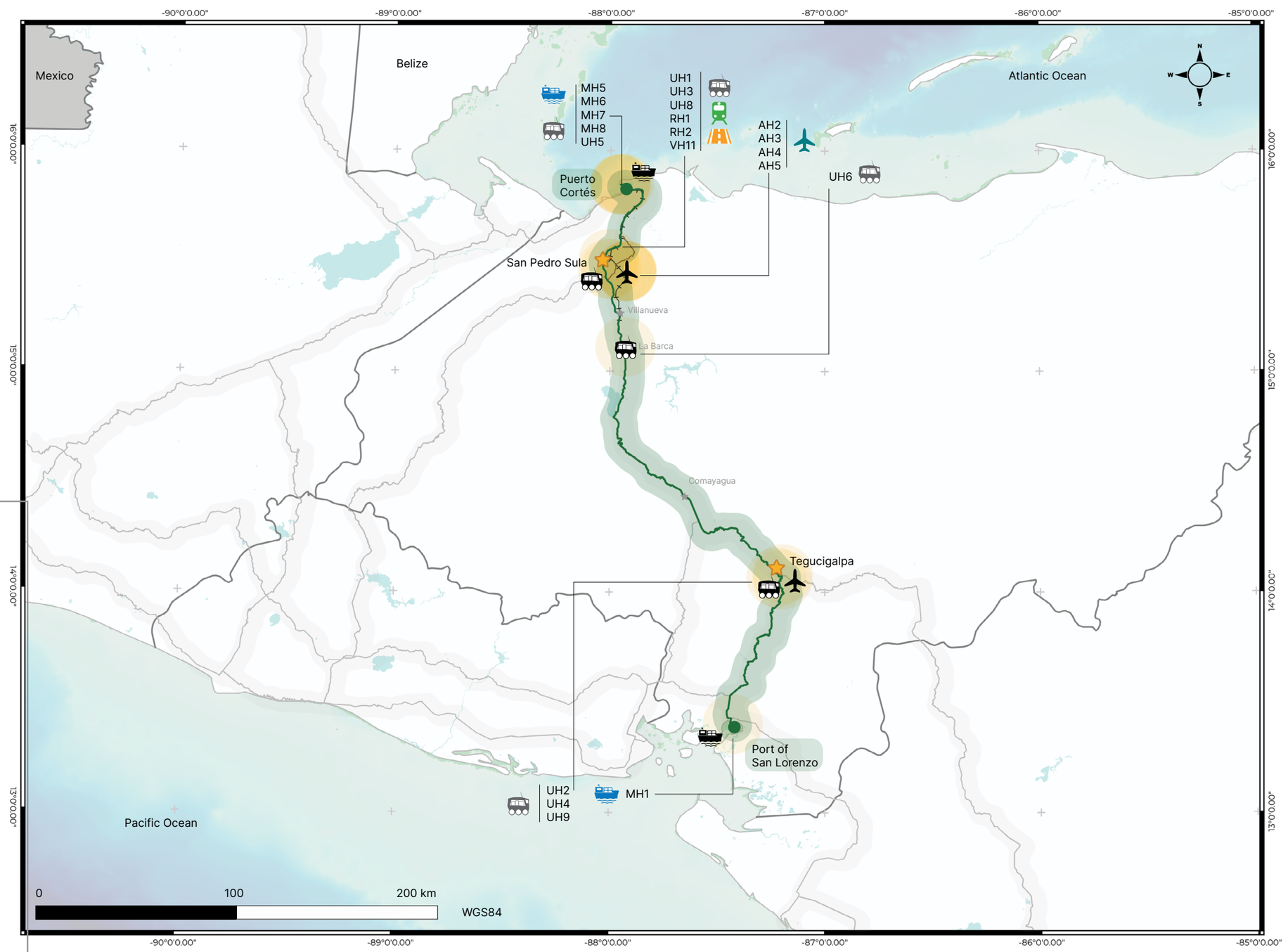
C6 Interoceanic Corridor

Stars: Port of San Lorenzo (HN)
Ends: Puerto Cortés (HN)
Section length: 414 km
Projects: 23

Map 15
Source: JST.



Graph 10: C6 Amount of investment.
Source: JST.



Legend

- Interoceanic Corridor HN -C6-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water

C6 Interoceanic Corridor

Honduras (HN)

Description

Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km)(projected)

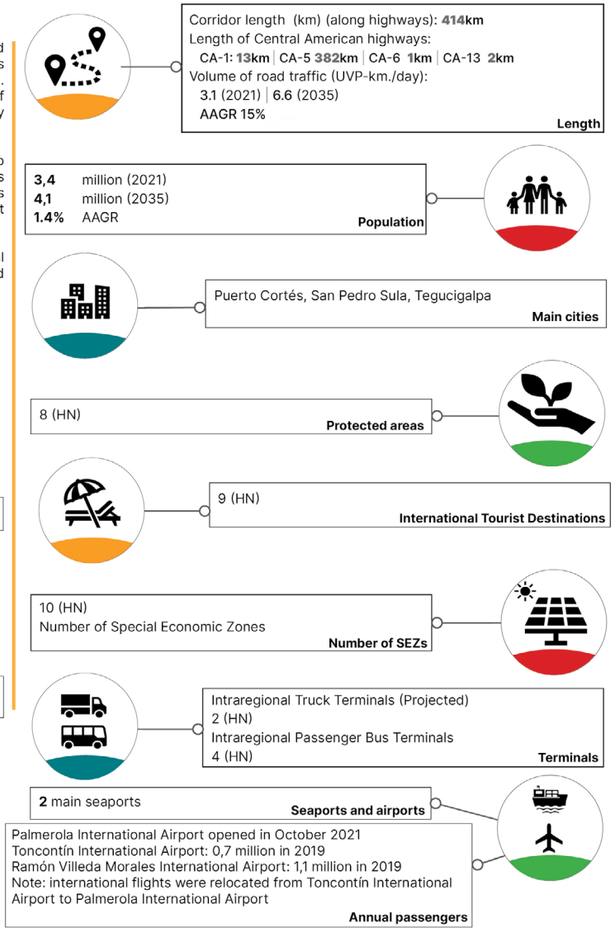
C6 is a corridor that connects Puerto Cortés (HN) with the Port of San Lorenzo (HN) on the Pacific Ocean via Tegucigalpa. It partially overlaps with the Interior Corridor (C2) and the Interoceanic Corridor (C5).

Cargo movement

Puerto Cortés specializes in banana and textile products exports from the free zones located on the outskirts of San Pedro Sula. The port connects with the city of Tegucigalpa and the Port of San Lorenzo by road.

The Port of San Lorenzo is the gateway to Honduras from the Pacific Ocean. Exports include Iron oxide and sugar, while imports include oil derivatives and cars. The port connects with the Pacific Corridor (C1).

The recently opened Palmerola International Airport is located between Tegucigalpa and San Pedro Sula.



Infographic 6: C6 Datasheet.
Source: JST

Port	Containerized metric tons)	Other metric tons)	Number of Berths	Maximum Berth Depth (m)
Port of San Lorenzo	131	1,126	2	9
Puerto Cortés	5,302	9,288	4	14

Road Infrastructure & Land Transport Axis

	P/ID	Country	Project
1	VH01		CA-5 Norte: rehabilitation / construction of Tegucigalpa - Puerto Cortés highway
2	VH10		CA-5 y CA-13: rehabilitation and construction of access bridges in and out of Puerto Cortés
3	VH11		CA-5: San Pedro Sula ring road development

Port–Maritime Axis

	P/ID	Country	Project
4	MH1		Expansion of the Port of San Lorenzo
5	MH5		Port Cortés container terminal expansion
6	MH6		Upgrade of Puerto Cortés bulk terminal
7	MH7		Puerto Cortés improvement and expansion
8	MH8		Puerto Cortés: installation of a natural gas power generation plant

Aeronautical–Airport Axis

	P/ID	Country	Project
9	AH1		Introduction of electronic air waybill
10	AH2		Ramón Villeda Morales International Airport: runway extension, expansion of passenger and cargo terminal
11	AH3		Ramón Villeda Morales International Airport: improvement of aviation safety regulations with EDS
12	AH4		Ramón Villeda Morales International Airport: TA to improve the quality of service of transport operators/ air cargo handling
13	AH5		Ramón Villeda Morales International Airport: TA in airport operation and maintenance

Railway Transport Axis

	P/ID	Country	Project
14	RH1		Potrerillos container port (dry port)
15	RH2		Railway rehabilitation in Honduras (San Pedro Sula - Puerto Cortés)

Urban Logistics Axis

	P/ID	Country	Project
16	UH1		San Pedro Sula: Develop truck terminal
17	UH2		Tegucigalpa: Develop truck terminal
18	UH3		San Pedro Sula metropolitan area: Urban Logistics Master Plan
19	UH4		Tegucigalpa metropolitan area: Urban Logistics Master Plan
20	UH5		Puerto Cortés: Development Logistics Activities Zone
21	UH6		La Barca: Development Logistics Activities Zone
22	UH8		San Pedro Sula: Development Logistics Activities Zone
23	UH9		Tegucigalpa: Development Logistics Activities Zone

Table 24: Project per axis C6. Source: JST.



Gulf of Fonseca, Honduras.



Port of La Unión, El Salvador.



Interoceanic Corridor #7

Port of La Unión (SV) | Puerto Cortés (HN)

C7 Interoceanic Corridor - Development Strategies

Amount of investment (million USD at 2023 rates)

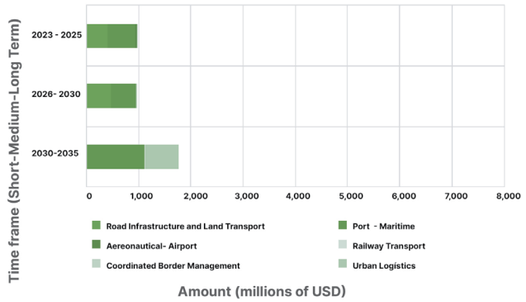
- 2023 - 2025: **979**
- 2026 - 2030: **955**
- 2031 - 2035: **1,763**

Strategic Objetives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Rehabilitate bridges and the access road to Puerto Cortés and Port of La Unión to facilitate cargo transport. • Develop the railway between San Pedro Sula-El Amatillo and El Amatillo-La Unión to connect the Honduran Caribbean coast with the Pacific coast of El Salvador. This includes development of La Unión port and the new Amapala port (pending completion of feasibility study).
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Activate the recently built logistics corridor and Port of La Unión, El Salvador, by promoting industrial development in that zone. • Develop Logistics Activity Zones in El Amatillo, La Barca, Alianza/Goascorán and San Pedro Sula to support the cargo transport industry. • Expand the Sirama-El Amatillo highway section to 4 lanes.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Develop railway and Inland Container Depot (ICD) in northern Honduras to reduce customs times at the port. • Expand runway and passenger/cargo terminals at Ramón Villeda Morales Int'l Airport, Honduras' busiest airport. • Modernize El Amatillo border crossing between Honduras and El Salvador to shorten crossing times. • Prepare new design for the El Delirio-El Carmen road section (intersection of CA2 with CA1).
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Build ring road around San Pedro Sula. • Build truck terminals in San Pedro Sula and Tegucigalpa (HN) to shorten transport times and cut costs. • Develop Urban Logistics Master Plans for San Pedro Sula and Tegucigalpa (HN) that present solutions such as route and schedule improvements for cargo providers operating along the corridor.

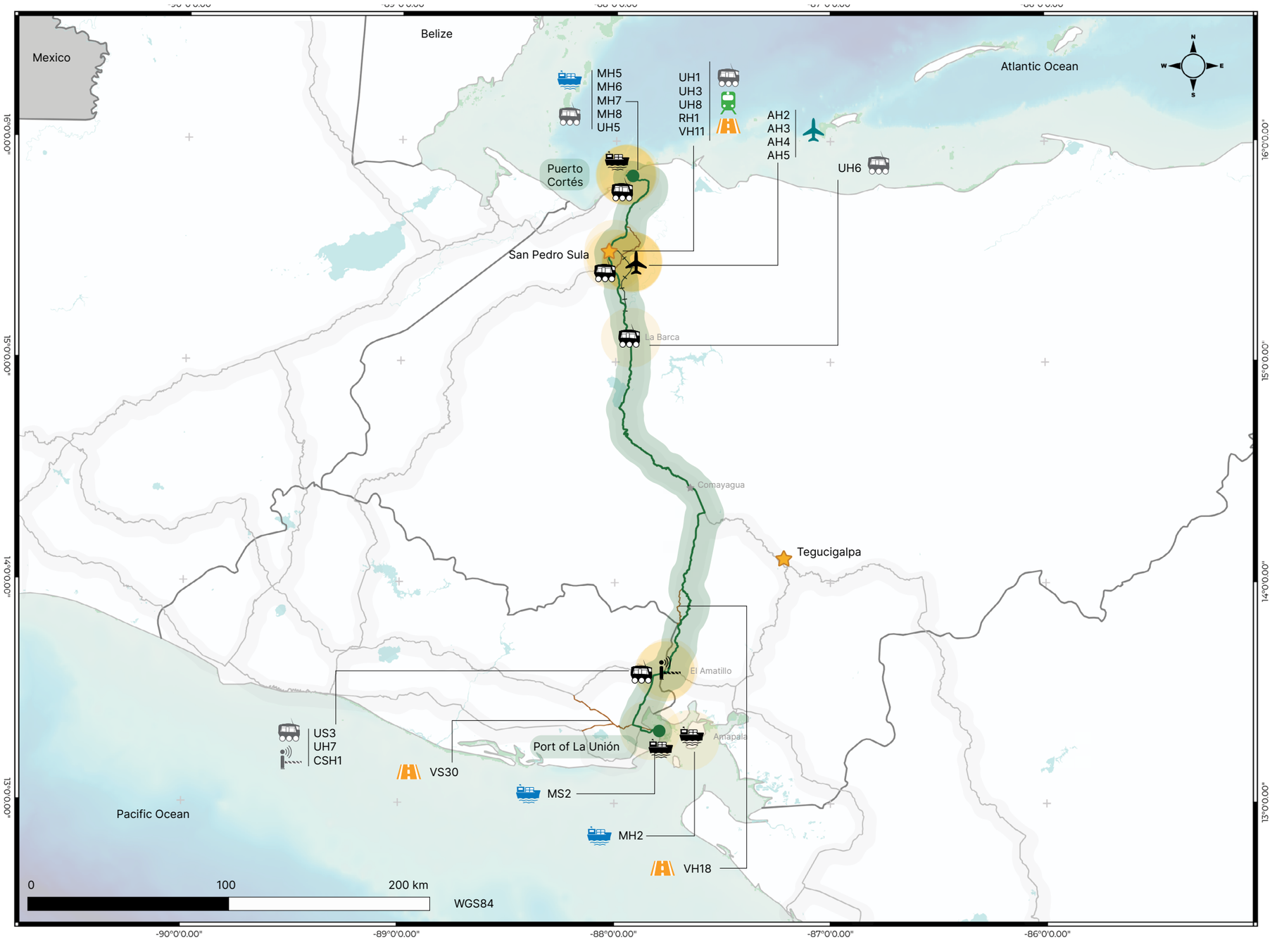
C7 Interoceanic Corridor

Stars: Port of La Unión (SV)
Ends: Puerto Cortés (HN)
Section length: 385 km
Projects: 29

Map 16
Source: JST.



Graph 11: C7 Amount of Investment.
Source: JST.



Legend

- Interoceanic Corridor -C7-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water

C7 Interoceanic Corridor

El Salvador (SV) - Honduras (HN)

Description

C7 is a corridor that connects Puerto Cortés (HN) and Port of La Unión (SV) in the Pacific Corridor through the newly developed Dry Corridor in Honduras.

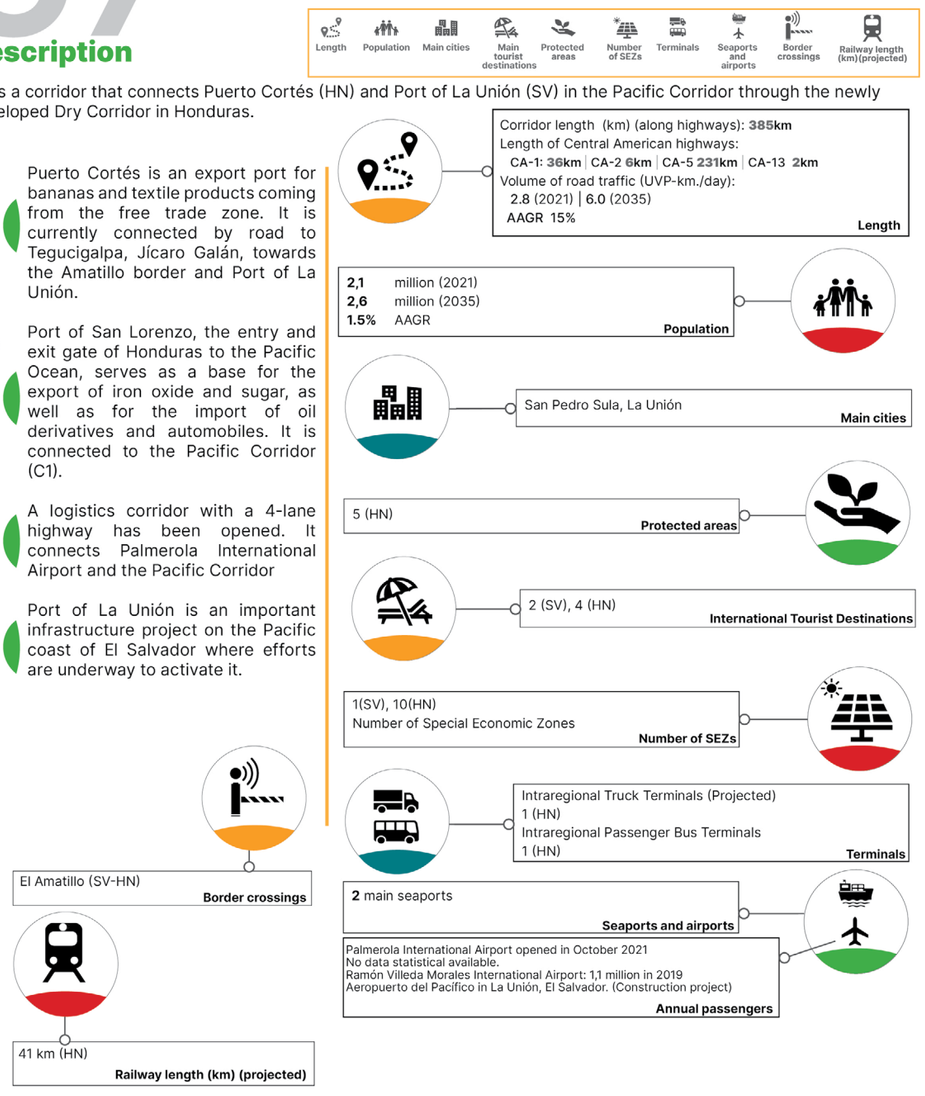
Cargo movement

Puerto Cortés is an export port for bananas and textile products coming from the free trade zone. It is currently connected by road to Tegucigalpa, Jícaro Galán, towards the Amatillo border and Port of La Unión.

Port of San Lorenzo, the entry and exit gate of Honduras to the Pacific Ocean, serves as a base for the export of iron oxide and sugar, as well as for the import of oil derivatives and automobiles. It is connected to the Pacific Corridor (C1).

A logistics corridor with a 4-lane highway has been opened. It connects Palmerola International Airport and the Pacific Corridor

Port of La Unión is an important infrastructure project on the Pacific coast of El Salvador where efforts are underway to activate it.



Infographic 7: C7 Datasheet. Source: JST

Port	Containerized (metric ton)	Other (metric ton)	Number of Berths	Maximum Berth Depth (m)
Port of La Unión	0	7	2	8
Puerto Cortés	5,302	9,288	4	14

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VS01		Port of La Unión: modernization of access road.
2	VS12		New design of El Delirio - El Carmen (CA-2 and CA-1 intersection opening)
3	VS13		CA-1 East: widening to 4 lanes Sirama - El Amatillo section: Sirama (La Unión) - Pasaquina
4	VS14		CA-1 East: widening to 4 lanes Sirama - El Amatillo section: Pasaquina - El Amatillo (10 km)
5	VS30		CA-1 East: widening to 4 lanes, east exit of San Miguel - Sirama (36 km)
6	VH01		CA-5 North: rehabilitation/construction of Tegucigalpa - Puerto Cortés highway
7	VH10		CA-5 and CA-13: rehabilitation and construction of access and exit bridges to and from Puerto Cortés.
8	VH11		CA-5: development of the San Pedro Sula bypass road
9	VH18		RN-112: improvement of security in the Dry Canal (fences, crosswalks, street lighting, etc.)

Port–Maritime Axis

	P/ID	Country	Project
10	MS2		Development of Port of La Unión
11	MH2		Construction of the new Port of Amapala
12	MH5		Expansion of the container terminal at Puerto Cortés
13	MH6		Improvement of the Puerto Cortés bulk terminal
14	MH7		Improvement and expansion of Puerto Cortés
15	MH8		Installation of natural gas power generation plant at Puerto Cortés

Aeronautical–Airport Axis

	P/ID	País	Project
16	AH1		Introduction of electronic air waybill
17	AH2		Ramón Villeda Morales International Airport: runway expansion, passenger, and cargo terminal expansion
18	AH3		Ramón Villeda Morales International Airport: improvement of aeronautical safety regulations with EDS
19	AH4		Ramón Villeda Morales International Airport: TA to improve the quality of service for transport operators / air cargo handling
20	AH5		Ramón Villeda Morales International Airport: TA in airport operations and maintenance

Railway Transport Axis

	P/ID	País	Project
21	RH1		Container port (dry port) in Potrerillos

Coordinated Border Management Axis

	P/ID	País	Project
22	CSH1		El Amatillo (SV-HN): border modernization (Single Window)

Urban Logistics Axis

	P/ID	País	Project
23	US3		El Amatillo: development of Logistics Activities Zone, LAZ
24	UH1		San Pedro Sula: development of truck terminal
25	UH3		San Pedro Sula metropolitan area: Urban Logistics Master Plan
26	UH5		Puerto Cortés: development of Logistics Activities Zone, LAZ
27	UH6		La Barca: Logistics Activities Zone Development, LAZ
28	UH7		La Alianza - Goascorán: development of Logistics Activities Zone, LAZ
29	UH8		San Pedro Sula: Development of Logistics Activity Zone, LAZ

Table 25: Projects by axis C7. Source: JST.



Highway, El Salvador.



Port of Acajutla, El Salvador.



Interoceanic Corridor #8

Port of Acajutla (SV)
Port of Santo Tomás de Castilla (GT)



C8 Interoceanic Corridor - Development Strategies

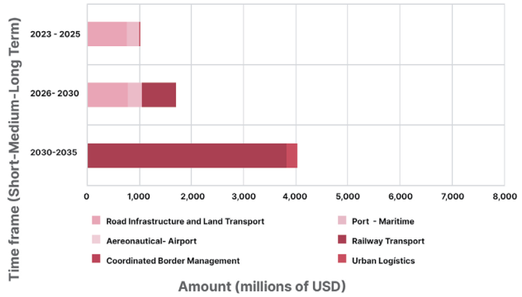
Amount of investment (million USD at 2023 rates)

- 2023 - 2025: **1,003**
- 2026 - 2030: **1,697**
- 2031 - 2035: **4,031**

Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Rehabilitate and widen highways CA 2, CA 10 and CA 12 to improve cargo and passenger transport capacity between the Port of Acajutla and the Port of Santo Tomás de Castilla. • Reactivate the two railway lines, the section between Guatemala City and Puerto Barrios, and the section between Acajutla and San Salvador. In case of emergencies, it will be an alternative route for cargo transportation. • Improve and expand Port of Santo Tomás de Castilla, Puerto Barrios, and Port of Acajutla.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop Logistics Activities Zones in the Port of Acajutla, Port of Santo Tomás de Castilla, and Puerto Barrios so that they have a suitable infrastructure to serve all national and international logistics processes.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Modernize the Anguiatú / La Ermita border to improve border crossing times.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities	• Build bypass roads in Sonsonate and Santo Tomas de Castilla to reduce traffic congestion along this corridor.

C8 Interoceanic Corridor

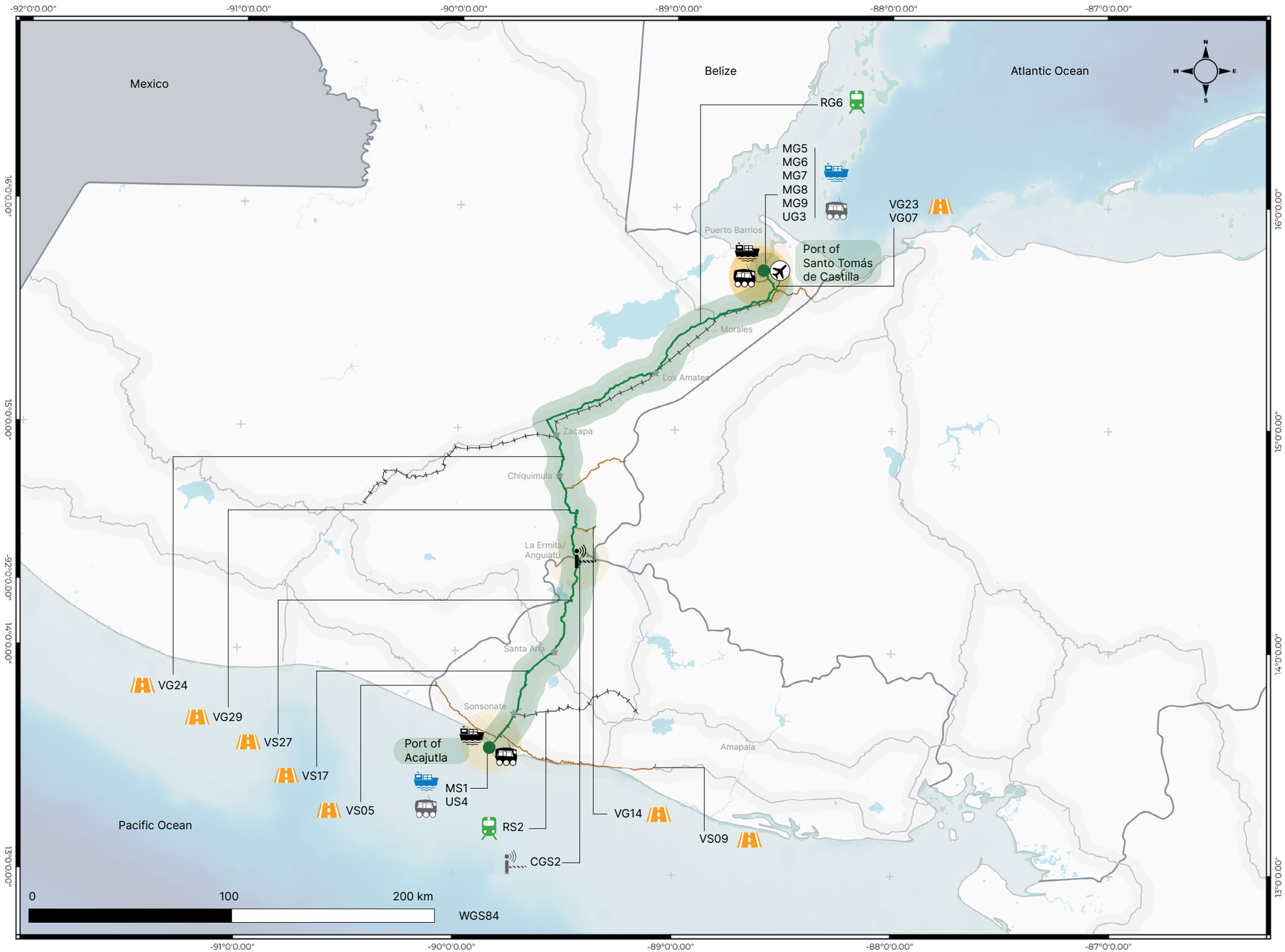
Starts: Port of Acajutla (SV)
Ends: Port of Santo Tomás de Castilla (GT)
Section length: 374 km
Projects: 21
Map 17
Source: JST.



Graph 12: C8 Amount of investment.
Source: JST.

Legend

- Interoceanic corridor -C8-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Local Airport
- Urban Logistics
- Customs
- Corridor Projects
- Corridor Starts/Ends
- Border
- Body of Water



C8 Interoceanic Corridor

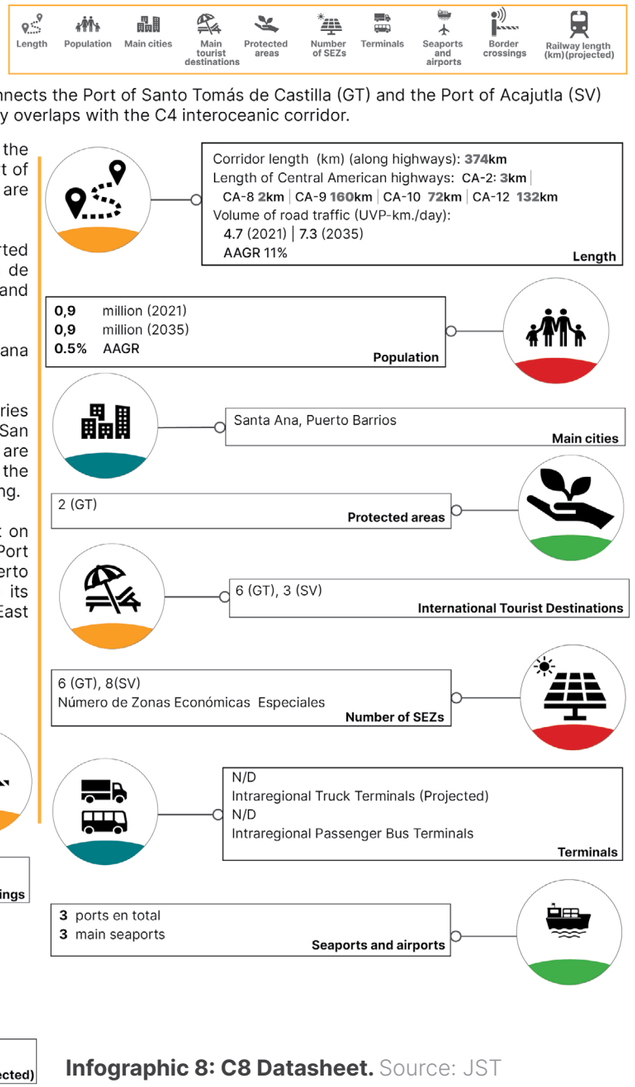
El Salvador (SV) - Guatemala (GT)

Description

The C8 is an international corridor that connects the Port of Santo Tomás de Castilla (GT) and the Port of Acajutla (SV) via the Anguiatú border crossing; it partially overlaps with the C4 interoceanic corridor.

Cargo movement

- Sugar is exported from the surrounding areas through the Port of Acajutla, and fuels and cereals are imported.
- Bananas and nickel are exported through the Port of Santo Tomás de Castilla, and chemical products and fuels are imported.
- Puerto Barrios is a private banana export port.
- There are several textile factories (maquilas) in the outskirts of San Salvador; textile products are exported to the United States via the Anguiatú / La Ermita border crossing.
- El Salvador does not have a port on the Atlantic coast, so it uses the Port of Santo Tomás de Castilla and Puerto Barrios in Guatemala to mobilize its foreign trade to Europe and the East Coast of the United States.



Infographic 8: C8 Datasheet. Source: JST

Port	Containerized (metric ton)	Other (metric ton)	Number of Berths	Maximum Berth Depth (m)
Puerto Barrios	4,247	577	3	12
Port of Santo Tomás de Castilla	3,941	4,819	4	11
Port of Acajutla	1,427	3,296	8	12.5

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VG07		CA-13: improvement of the road on the Entre Ríos - Port of Santo Tomás de Castilla border crossing
2	VG14		CA-12 Padre Miguel - Anguiatú (border with El Salvador)
3	VG23		Bypass Road in Santo Tomás de Castilla
4	VG24		CA-10 Road improvement of Río Hondo - Padre Miguel/CA-11: El Florido border - Bioceanic Corridor (CA-9)
5	VG29		CA-10: Rehabilitation section: Aldea Santa Elena - Santa Teresa
6	VS05		CA-2 West: road expansion, La Hachadura - Acajutla (partially south CA-12)
7	VS09		CA-2: widening of the corridor to 4 lanes or a third lane, Comalapa - Acajutla section (56 Km)
8	VS17		CA-12 North: improvement of the Acajutla-Anguiatú axis (expansion of the main Sonsonate-Anguiatú main road), Sonsonate - Santa Ana section
9	VS27		CA-12 North: widening of Santa Ana-Anguiatú Road
10	VS31		Northwest bypass road of Sonsonate (CA-8)

Port – Maritime Axis

	P/ID	Country	Project
11	MG5		Expansion/improvement of facilities in Port of Santo Tomás de Castilla
12	MG6		Development of liquid and dry bulk terminals in Port of Santo Tomás de Castilla
13	MG7		Construction of a cruise ship terminal in Port of Santo Tomás de Castilla
14	MG8		Improvements to the access navigation channel and the basin at Port of Santo Tomás de Castilla
15	MG9		Capacity expansion at Puerto Barrios
16	MS1		Development of the Port of Acajutla



Guatemala - El Salvador.

Railway Transport Axis

	P/ID	Country	Project
17	RG6		Railway rehabilitation (Guatemala City - Zacapa - Los Amates - Morales - Entre Ríos - Puerto Barrios)
18	RS2		Railway rehabilitation (San Salvador - San Juan Opico - Sonsonate - Acajutla)

Coordinated Border Management Axis

	P/ID	Country	Project
19	CGS2		La Ermita (GT) / Anguiatú (SV): border crossing modernization (“Single window)

Urban Logistics Axis

	P/ID	Country	Project
20	UG3		Port of Santo Tomás de Castilla /Puerto Barrios: development of Logistics Activities Zone, LAZ
21	US4		Port of Acajutla: development of Logistics Activities Zone, LAZ

Table 26: Projects per Axis C8. Source: JST.





Port of Corinto, Nicaragua.



Interoceanic Corridor #9

Nicaragua

Port of Corinto | Port of Bluefields



C9 Interoceanic Corridor - Development Strategies

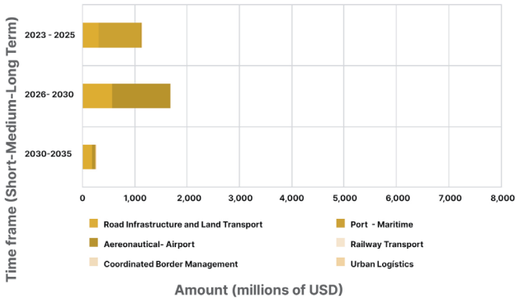
Amount of investment (million USD at 2023 rates)

- 2023 - 2025: **1,132**
- 2026 - 2030: **1,691**
- 2031 - 2035: **259**

Strategic Objetives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Improve Corinto port and access based on Master Plan formulated and supported by the IDB. • Improve Sandino International Airport, Phases 1-4, plus EDS regulations and cargo handling services.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop Bluefields port and access road based on feasibility study results. • Build Nejapa-Tipitapa highway to deliver greater mobility of people, goods and services. • Develop cruise ship terminal to increase tourism on Pacific coast of Nicaragua. • Prepare feasibility study, design and build Bluefields and Corn Island airports to increase tourism and movement of cargo and people on Caribbean coast of Nicaragua.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Improve/expand NI-2 Int.-León, La Curva-Nueva Guinea, Managua-Chinandega, Acoyapa-San Benito roads, contributing to strategic spatial planning, tourism development and economic development.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Develop truck terminal in Managua to ease city's traffic congestion and improve efficiency of goods delivery. • Develop Chinandega and Juigalpa ring roads and rehabilitate Victoria de Julio junction.

C9 Interoceanic Corridor

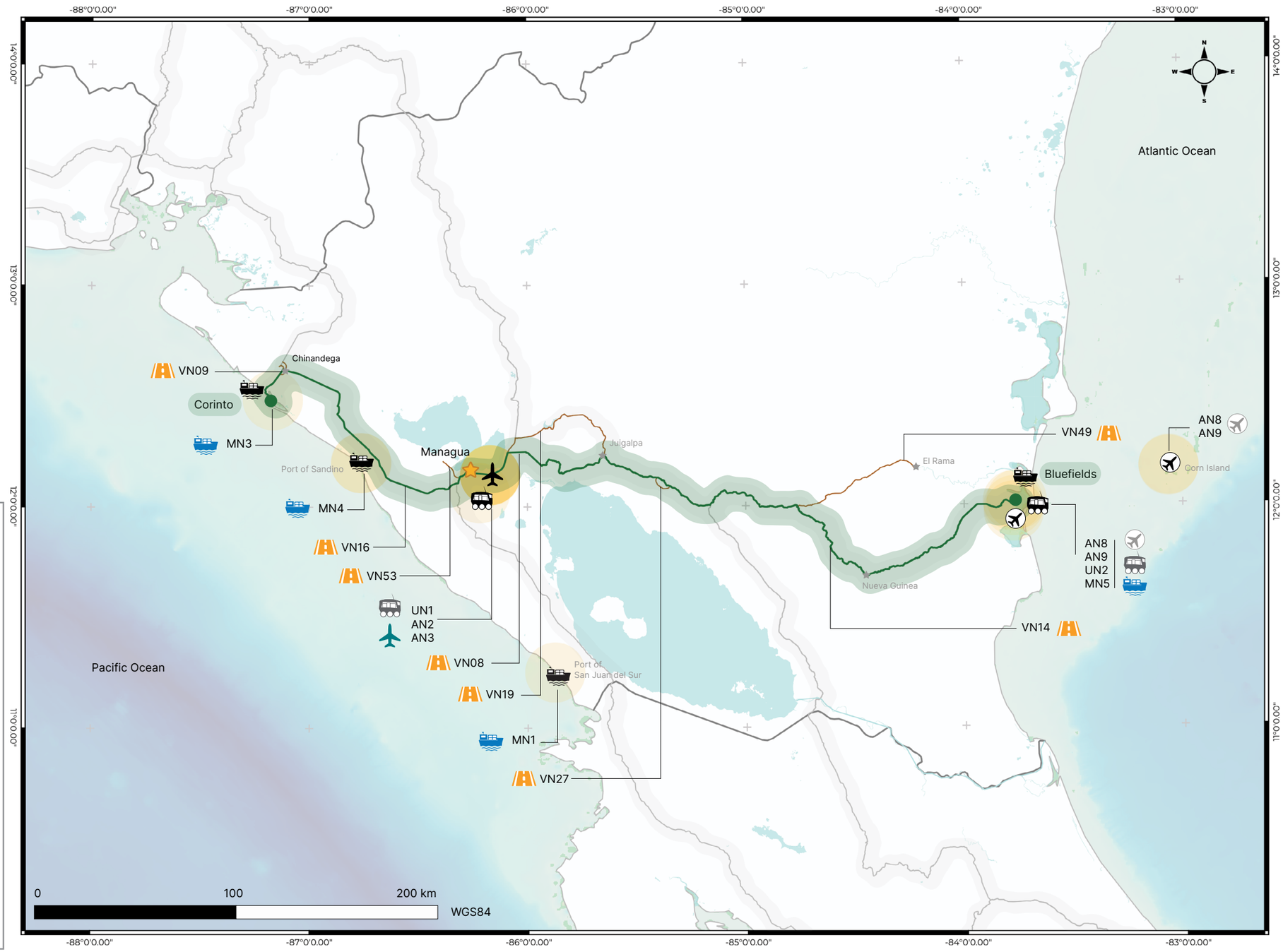
starts: Port of Corinto (NI)
Ends: Port of Bluefields (NI)
Section length: 521 km
Projects: 25
Map 18
Source: JST.



Graph 13: C9 Amount of Investment.
Source: JST.

Legend

- Interoceanic Corridor -C9-
- Other Logistic Corridors
- Highway
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Local airport
- Urban Logistics
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C9 Interoceanic Corridor

Nicaragua (NI)

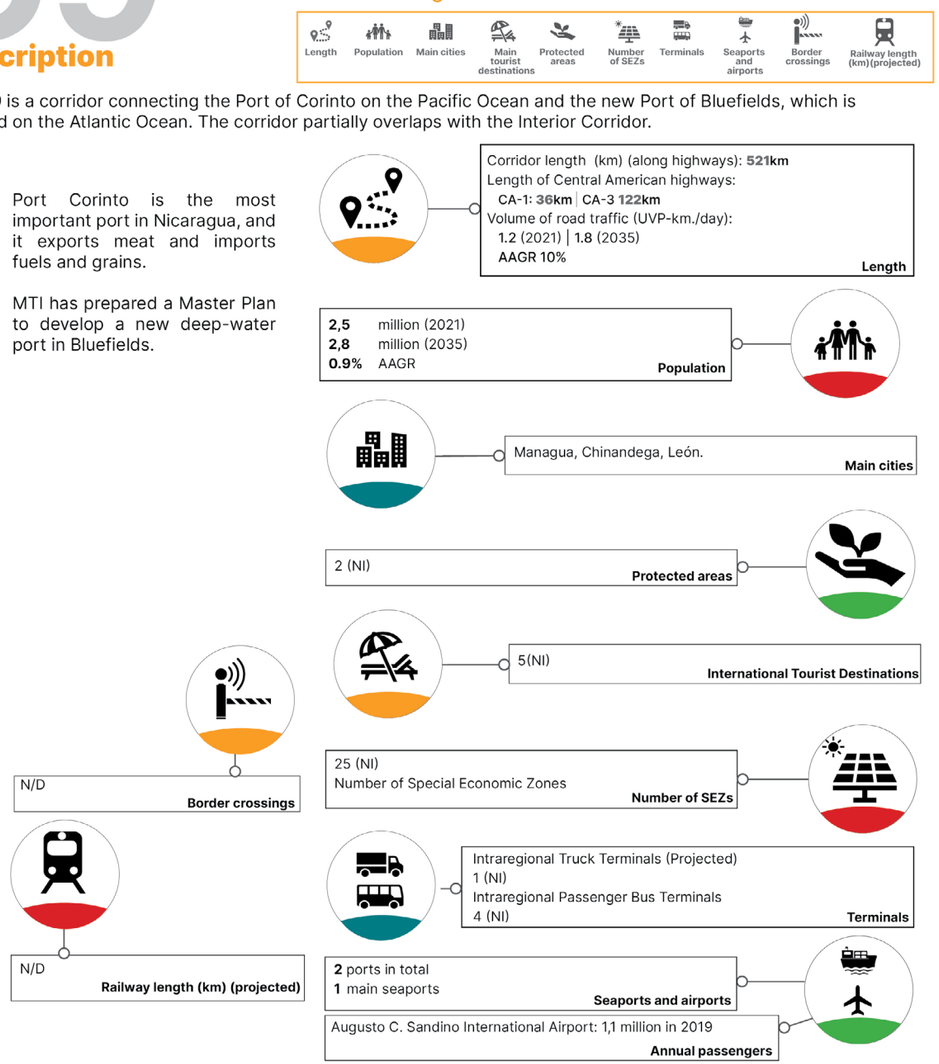
Description

The C9 is a corridor connecting the Port of Corinto on the Pacific Ocean and the new Port of Bluefields, which is planned on the Atlantic Ocean. The corridor partially overlaps with the Interior Corridor.

Cargo movement

Port Corinto is the most important port in Nicaragua, and it exports meat and imports fuels and grains.

MTI has prepared a Master Plan to develop a new deep-water port in Bluefields.



Infographic 9: C9 datasheet.
Source: JST

Port	Containerized (metric ton)	Other (metric ton)	Number of Berths	Maximum Berth Depth (m)
Port of Corinto	1,252	2,714	4	13.1

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VN08		R_PR1: Road construction: Nejapa - Ticuantepe - Tipitapa
2	VN09		R_IW2: Improvement (widening): Leon - Chinandega (NIC-12A)
3	VN10		R_IW1: Improvement (widening): NIC-2 Int. - Leon (NIC-12A)
4	VN14		RIR2: Rehabilitation (reclassification): La Curva - Nueva Guinea (NI-71)
5	VN16		Expansion of the Managua - Chinandega Corridor
6	VN19		Rehabilitation of Acoyapa - San Benito section
7	VN24		Chinandega Bypass
8	VN27		Juigalpa Bypass
9	VN39		Rehabilitation of Victoria de Julio junction
10	VN49		R_NR3: Road construction: El Rama - Las Brenas - San Francisco
11	VN53		Widening of the western arc (ring road) of Managua (Nejapa - Los Brasiles section)

Port – Maritime Axis

	P/ID	Country	Project
12	MN2		Development of the cruise ship terminal (Port of Sandino, Port of San Juan del Sur and Gulf of Fonseca).
13	MN3		Improvement of the capacity of Port of Corinto
14	MN4		Improvements to Port of Sandino
15	MN5		Development of the new Port of Bluefields



Honduras - Nicaragua.

Aeronautical–Airport Axis

	P/ID	Country	Project
16	AN2		Augusto C. Sandino International Airport: phase 1 expansion (800 m of runway extension and extension of taxiway)
17	AN3		Augusto C. Sandino International Airport: phase 2 expansion (new cargo terminal, apron, and taxiway to new cargo area)
18	AN4		Augusto C. Sandino International Airport: phase 3 expansion (new domestic passenger terminal and apron)
19	AN5		Augusto C. Sandino International Airport: phase 4 expansion (international terminal expansion)
20	AN6		Augusto C. Sandino International Airport: improvement of aeronautical safety regulations with EDS
21	AN7		Augusto C. Sandino International Airport: TA to improve the quality of service for transport operators / air cargo handling
22	AN8		Bluefields and Corn Island airports: feasibility study on the Airport Development Plan
23	AN9		Bluefields and Corn Island airports: development and construction

Urban Logistics Axis

	P/ID	Country	Project
24	UN1		Managua: Development of truck terminal
25	UN2		Bluefields: Development of Logistics Activities Zone (LAZ)

Table 27: Projects per Axis C9. Source: JST.





Moín, APM, and Limón Bay, Costa Rica.



Interoceanic Corridor #10

Costa Rica

Port of Caldera | Port of Limón/Moín



C10 Interoceanic Corridor - Development Strategies

Amount of investment (million USD at 2023 rates)

- 2023 - 2025: **1,984**
- 2026 - 2030: **1,287**
- 2031 - 2035: **3,927**

Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Improve Limón / Moín ports, including access roads and railways. • Improve Caldera port and access roads. • Rehabilitate the Cartago-Siquirres railroad to support high-volume transport at low operating cost. • Expand Juan Santamaría Airport (Phases 1-5), improve logistics automation equipment, EDS regulations and cargo-operator services.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Develop the Limon (TELCA) electric freight train project (Phases 1-4) and the Pacific freight train project, to improve commodity transport nationwide, at competitive rates not subject to fuel price fluctuations. • Develop the Paquera-Playa Naranjo, San José-San Ramón and Y Griega Guápiles-Limón highways, to provide an economic boost to tourism and productive areas. • Build tunnel: Zurquí-Río Sucio section. • Build Logistics Activities Zones in Moín and in the GAM to facilitate services, technology and intermodality.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Expand Caldera port and build container terminal at Moín port to improve costs, speed, efficiency and safety conditions. • Widen the San José-Caldera highway.
4. Promote and efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Build a bypass road around the San José metropolitan area. • Develop a truck terminal in San José to help alleviate traffic congestion in the GAM. • Make an Urban Logistics Master Plan for San José including features such as route control systems to optimize travel for truck drivers. • Build a northern section of San José ring road to help reduce congestion, pollution and fuel costs.

C10 Interoceanic Corridor

Starts: Puerto Caldera (CR)

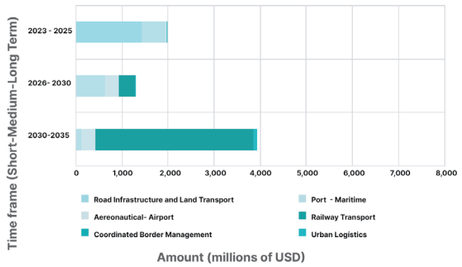
Ends: Puerto Limón/Moín (CR)

Section length: 238 km

Projects: 32

Map 19

Source: JST.

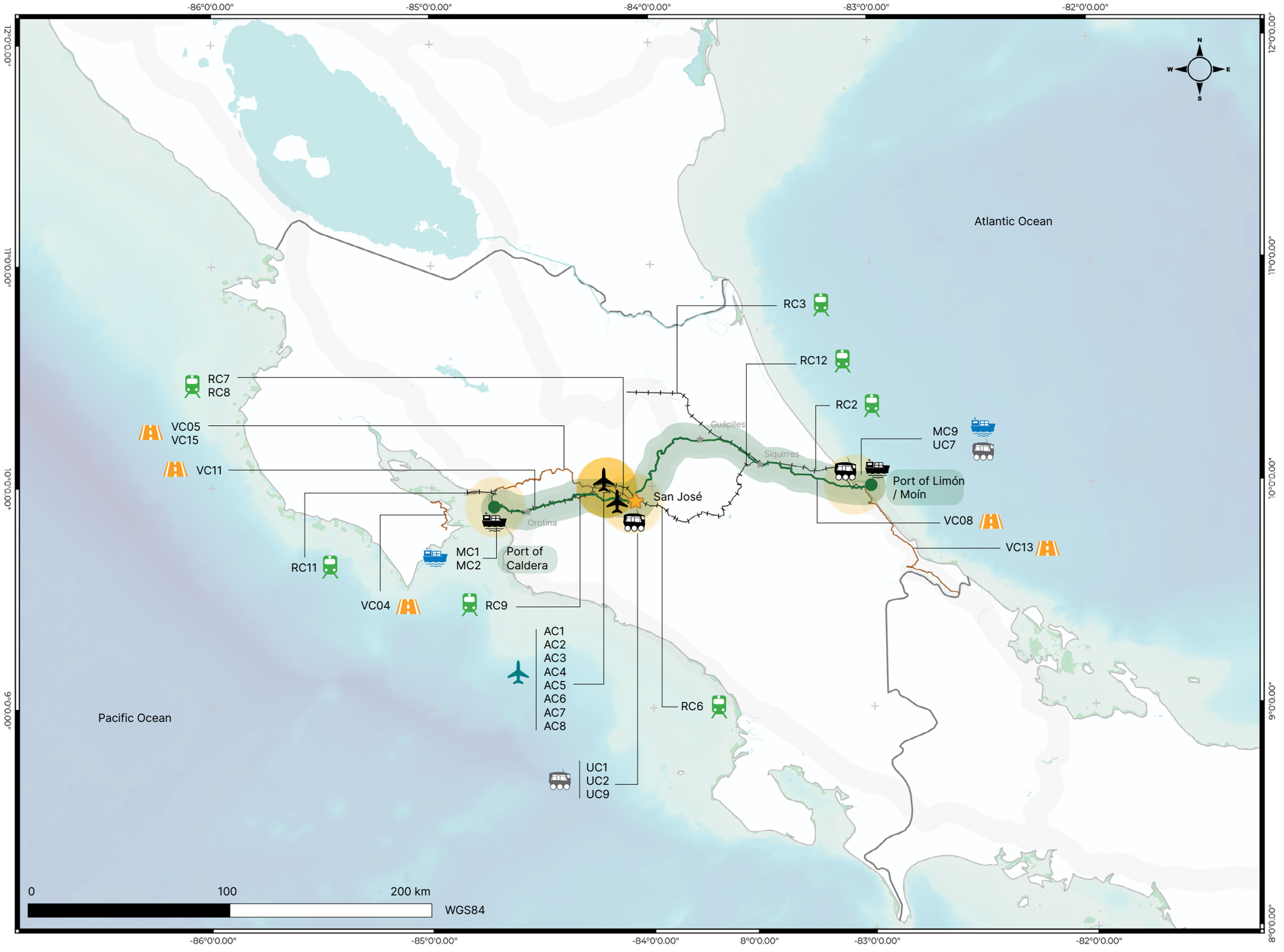


Graph 14: C10 Amount of Investment.

Source: JST.

Legend

- Interoceanic Corridor -C10-
- Other Logistic Corridors
- Highway
- Railway
- Railway Transport
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C10 Interoceanic Corridor

Costa Rica (CR)

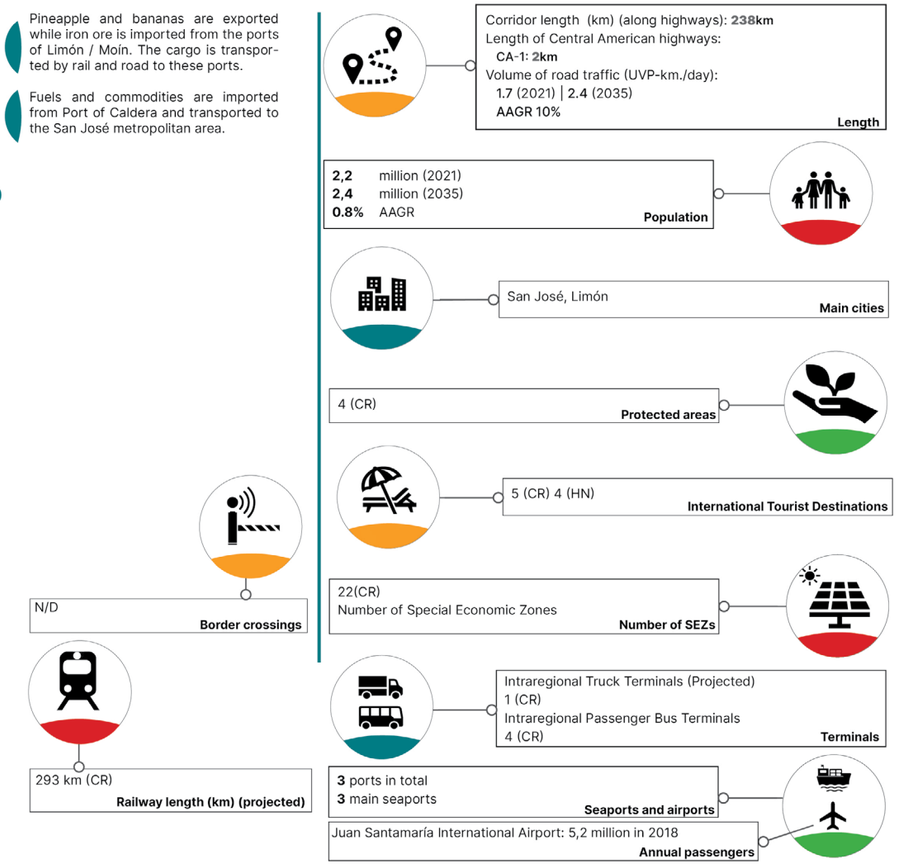
Description

C10 is the corridor that connects Port Limón/Moín on the Atlantic Ocean with Port of Caldera on the Pacific Ocean via San José.

Cargo movement

Pineapple and bananas are exported while iron ore is imported from the ports of Limón / Moín. The cargo is transported by rail and road to these ports.

Fuels and commodities are imported from Port of Caldera and transported to the San José metropolitan area.



Infographic 10: C10 datasheet. Source: JST

Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Port of Caldera	1,866	2,808	4	14.5
APM Terminals Moín	9,670	0	6	14.5
Limón/Moín port complex	713	2,931	6	10.5

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VC04		N160: Road Development: Paquera - Playa Naranjo
2	VC05		N1: Road development: San José - San Ramón
3	VC06		N39: North section of the San José ring road
4	VC08		N32: Road development: Y Griega Guápiles - Limón (Entr. R 4 and R 32)
5	VC10		N32: Development of the tunnel: Zurquí - Río Sucio Section
6	VC11		N27: Road Expansion: San José - Caldera
7	VC13		Limón - Sixaola (road improvement, 8 main bridges + 4 bridges)
8	VC15		N1: Road development: San Ramón - Barranca (development of a third lane)

Port–Maritime Axis

	P/ID	Country	Project
9	MC1		Expansion of Port of Caldera
10	MC2		Reinforcement of the waterfront at Port of Caldera
11	MC9		Construction of Port of Moín container terminal.

Aeronautical–Airport Axis

	P/ID	Country	Project
12	AC1		Juan Santamaría Airport: Phase 1 expansion (expansion of the international terminal, relocation of the fire station, etc.)
13	AC2		Juan Santamaría International Airport: Phase 2 expansion (setback of parallel taxiway on the west side, extension of parallel taxiway on the east side, etc.)
14	AC3		Juan Santamaría International Airport: Phase 3 Expansion (international terminal expansion and RESA apron side RWY07)
15	AC4		Juan Santamaría International Airport: Phase 4 expansion (international terminal and apron expansion)
16	AC5		Juan Santamaría International Airport: Phase 5 expansion (300 m runway and parallel taxiway extension, high landfill of almost 20 m)
17	AC6		Juan Santamaría International Airport: feasibility study on improvement of logistics automation equipment/procedures (customs, cargo handling/storage)
18	AC7		Juan Santamaría International Airport, improvement of aeronautical safety regulations with EDS
19	AC8		Juan Santamaría International Airport: TA to improve service quality of air cargo transport/ handling operators

Railway Transport Axis

	P/ID	Country	Project
20	RC2		TELCA Project, phase 1 (Moín - TCM JAPDEVA -Siquirres - Río Frío (GAM North Zone Yard)
21	RC3		TELCA Project, phase 2 (Río Frío - Chilamate)
22	RC6		Electric Train, route 1 (San José Atlántico - Cartago - Paraíso)
23	RC7		Electric train, route 2 (San José Atlántico - Airport - Alajuela)
24	RC8		Electric train, route 3 (San José Atlántico - Belén - Ciruelas)
25	RC9		Electric train, route 4 (Alajuela - Ciruelas)
26	RC10		Electric train, route 5 (Ciruelas - El Coyol)
27	RC11		Pacific Train Project (Puntarenas - Puerto Caldera - Ciruelas)
28	RC12		Railroad rehabilitation (Cartago - Siquirres)

Urban Logistics Axis

	P/ID	Country	Project
29	UC1		San José: Development of truck terminal
30	UC2		San José Metropolitan Area: Urban Logistics Master Plan
31	UC7		Moín: Development of Logistics Activities Zone (LAZ)
32	UC9		Greater Metropolitan Area (GAM): Development of Logistics Activities Zone (LAZ)

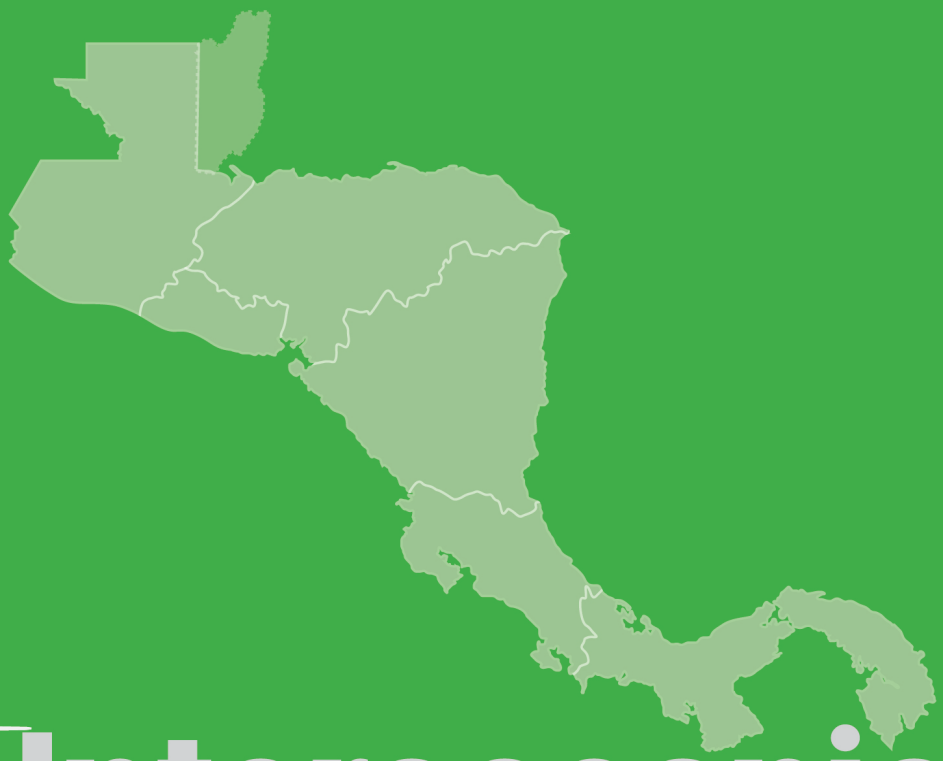
Table 28: Projects per Axis C10. Source: JST.



Puerto Caldera - Puerto Limón/Moín. Costa Rica.



Panama.



Interoceanic Corridor #11

Panama

Port of Colón | Port of Balboa



C11 Interoceanic Corridor - Development Strategies

Amount of investment (million USD at 2023 rates)

- 2023 - 2025: **1,508**
- 2026 - 2030: **1,465**
- 2031 - 2035: **0**

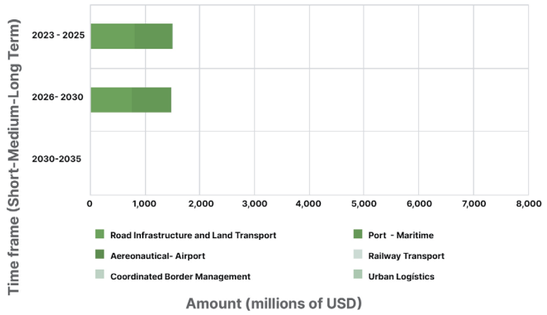
Strategic Objectives	Development Strategies
1. Develop a robust, competitive, safe, secure, resilient, and redundant regional transport system.	• Expand highways, ports, railways and distribution centers via private investment.
2. Create a transport and logistics network that contributes to spatial development, economic productivity, and regional integration.	• Widen Villa Grecia-Puente Don Bosco highway to 4 lanes • Develop additional container terminal for Panama Canal to cut costs and improve speed, efficiency and safety. • Develop Tocumen Int'l Airport Terminal 2, cargo warehouse and duty-free zone, 3rd runway, passenger terminals 3 & 4; improve explosive detection systems (EDS), regulations and air cargo services.
3. Increase the efficiency and quality of intraregional transport, mobility, and logistics by improving infrastructure and related services, as well as implementing common, integrated, and efficient procedures at border crossings.	• Develop Tocumen International Airport Terminal 2, cargo depot and free-trade zone, 3rd runway, passenger Terminals 3 & 4, improve EDS, regulations, air cargo service.
4. Promote efficient and sustainable solutions to urban logistics to address traffic congestion issues caused by cargo transport in cities.	• Develop truck terminal in Panama City to serve as a base for cargo pickup & delivery within the metropolitan area. • Make Urban Logistics Master Plan for Panama City to improve efficiency of cargo distribution in the urban area.

C11 Interoceanic Corridor

Starts: Port of Colón (PA)
End: Port of Balboa (PA)
Section length: 83 km
Projects: 10

Map 20

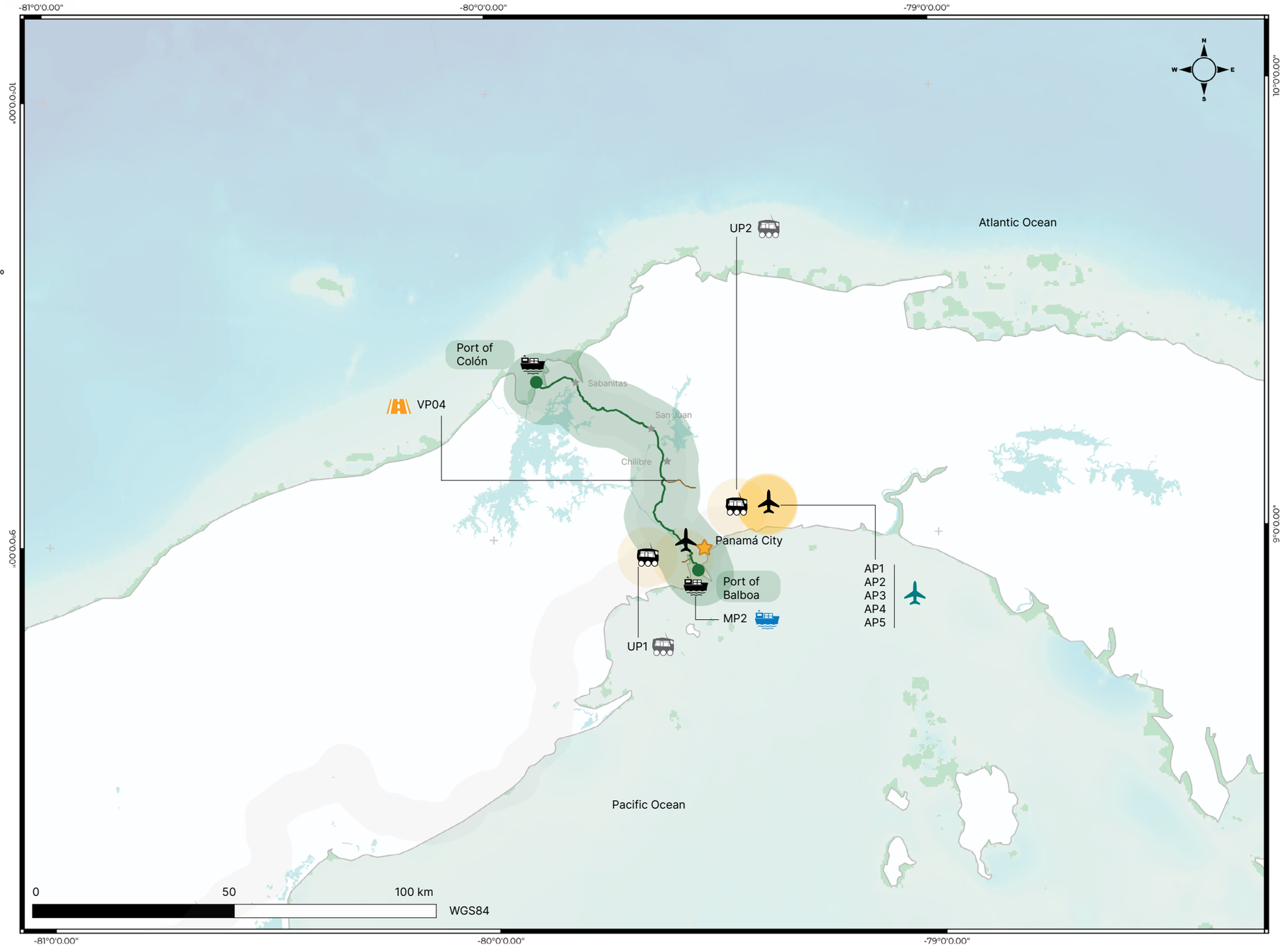
Fuente: JST.



Graph 15: C11 Amount of investment.
Source: JST.

Legend

- Interoceanic Corridor -C11-
- Other Logistic Corridors
- Highway
- Road Infrastructure and Land Transport
- Sea Port
- Airport
- Urban Logistics
- Corridor Projects
- Corridor Starts/Ends
- Capital City
- Border
- Body of Water



C11 Interoceanic Corridor

Panama (PA)

Description

The C11 is a corridor that connects the Port of Colon and the SEZ with Panama City and the Port of Balboa.

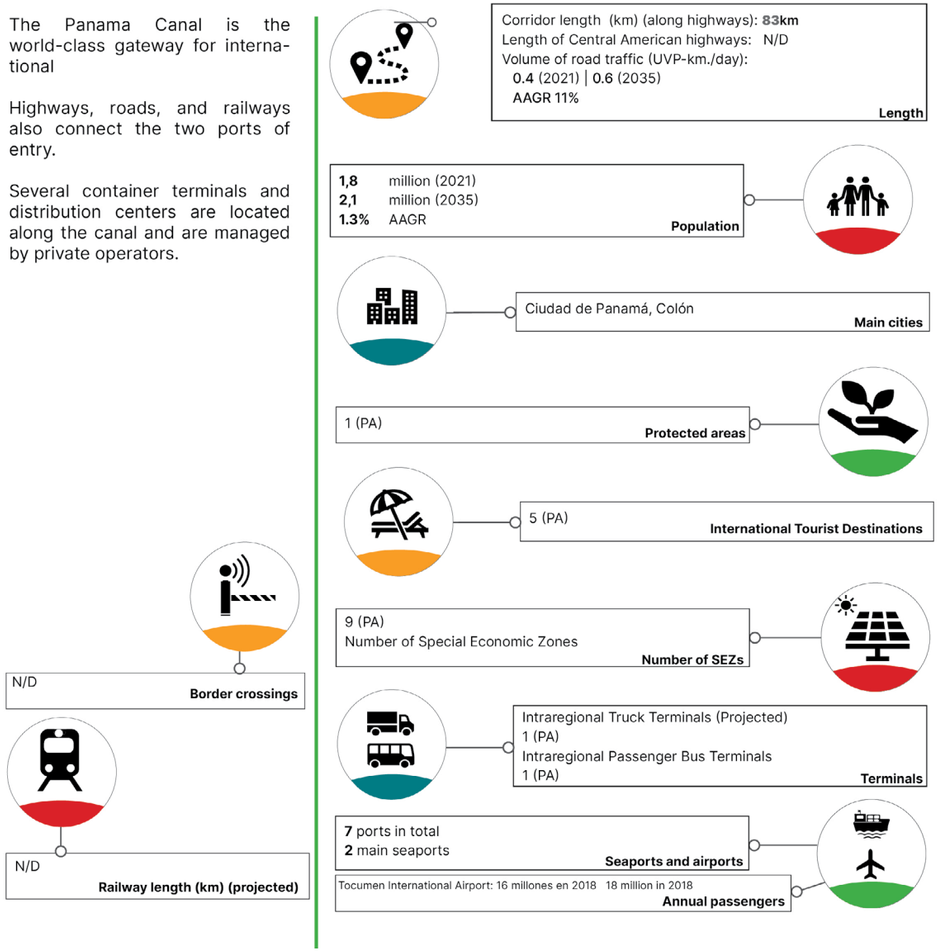
Length | Population | Main cities | Main tourist destinations | Protected areas | Number of SEZs | Terminals | Seaports and airports | Border crossings | Railway length (km)(projected)

Cargo movement

The Panama Canal is the world-class gateway for international

Highways, roads, and railways also connect the two ports of entry.

Several container terminals and distribution centers are located along the canal and are managed by private operators.



Infographic 11: C11 datasheet. Source: JST

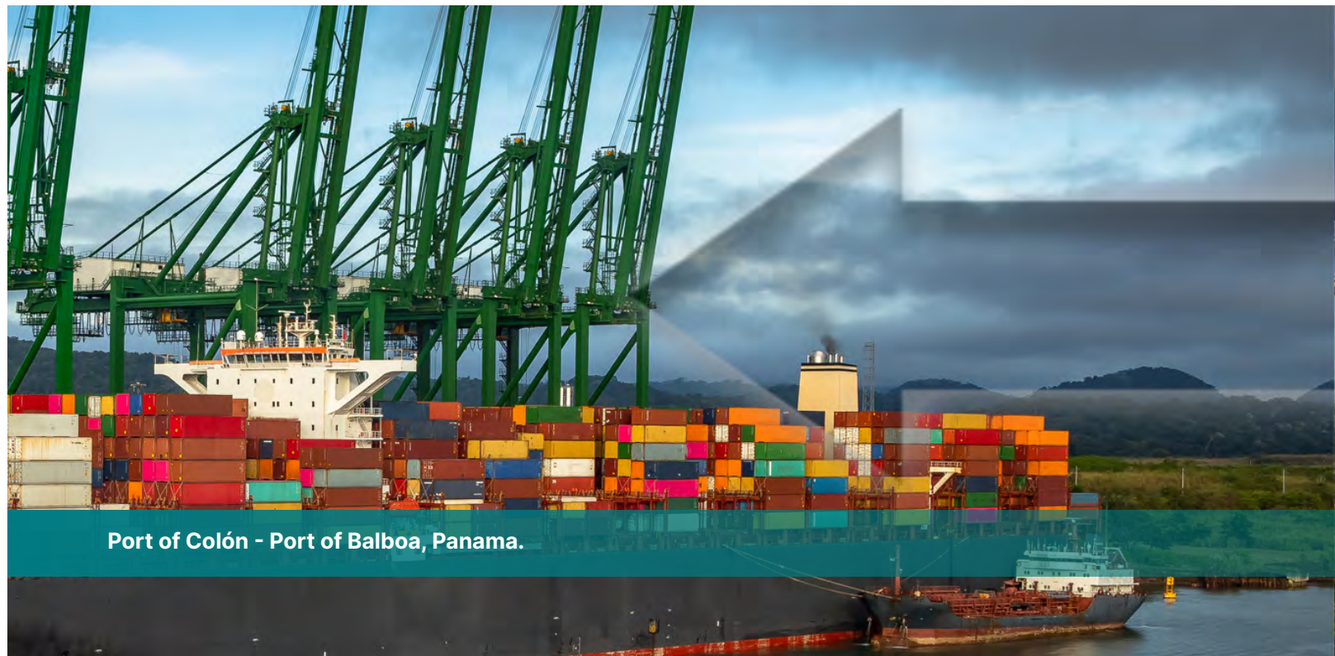
Port	Containerized (metric tons)	Other (metric tons)	Number of Berths	Maximum Berth Depth (m)
Port of Balboa	14,866	481	10	16.7
Port of Cristóbal	6,425	1,193	9	15.2

Road Infrastructure and Land Transport Axis

	P/ID	Country	Project
1	VP04		N3: Widening to 4 lanes of the road: Villa Grecia - Puente Don Bosco
2	VP07		Design and construction of the fourth bridge over the Panama Canal

Port-Maritime Axis

	P/ID	Country	Project
3	MP2		Development of the Panama Canal container terminal



Port of Colón - Port of Balboa, Panama.

Aeronautical–Airport Axis

	P/ID	Country	Project
4	AP1		Tocumen International Airport: development of terminal 2, cargo depot and free trade zone
5	AP2		Tocumen International Airport: development of the 3rd runway, passenger terminal 3 and 4
6	AP3		Tocumen International Airport: feasibility study on the improvement of logistics automation equipment/procedures (customs, cargo handling/storage)
7	AP4		Tocumen International Airport: improving aviation safety regulations with EDS
8	AP5		Tocumen International Airport: TA to improve the quality of service of air cargo transport/ handling operators

Urban Logistics Axis

	P/ID	Country	Project
9	UP1		Panama City: Development of truck terminal
10	UP2		Panama City: Urban Logistics Master Plan

Table 29: Projects per Axis C11.
Source: JST.



4.2 Chronological development of strategic corridors

The strategic corridor development proposal is based on three perspectives:

1. **Strengthen intraregional connectivity.** One short-term priority for strategic corridor development is to improve intraregional connectivity. This involves rehabilitation, construction and improvement of transport infrastructure, including roads, railways and maritime transport networks, to support better interconnection between strategic areas within countries or the region. This aims to facilitate the flow of goods, services and people, promoting economic and social integration in Central America.

2. **Enhanced connectivity between regional economic centers and international gateways (ports & airports).** This involves modernizing and expanding transport infrastructure to facilitate trade and international mobility, including roads and railways linking economic centers with ports and airports, and modernizing related facilities.

3. **Enhanced connectivity between international gateways and international markets (USA, EU, Asia, etc.).** In the long term, the goal is to improve connect Central America's links to global markets in order to increase trade and investment with other regions of the world.

Successful development of strategic corridors will require a comprehensive and coordinated vision among various stakeholders, including governments, businesses, local communities and international organizations. It is also necessary to consider socio-economic and environmental aspects in the design and implementation of strategies to ensure sustainable and equitable development.

To successfully achieve the objectives set out in the strategic corridors approach, it is important to establish short-, medium- and long-term strategies in order to enable a gradual and sustainable implementation, as described below:

Rehabilitar y fortalecer los corredores estratégicos existentes

Term	Key strategies
Short-term (2023 - 2025)	**Strengthen Pacific Corridor transport capacity:** focus on increasing capacity, speed, resilience and safety of the existing intraregional road network along the Pacific coast. • Boost connectivity between major cities by improving supply of inter-city freight and passenger transport services. • Increase transport capacity and quality by repairing and expanding deteriorated/ damaged roads and bridges, building urban ring roads and bypasses, developing distribution centers and launching short sea shipping services. • Promote diversity of transport modes by developing short sea shipping and rail services in order to add redundancy to the Pacific logistics corridor mix, and thus achieve greater capacity and security in the flow of commodities and people. **Strengthen transport capacity in interoceanic corridors:** • As basic commodities such as grains and fuels are mainly imported from the U.S. via the ports of Quetzal, Acajutla, Cortés, Corinto, Caldera, Manzanillo (Colón) and Balboa (Panama City), priority should be given to improving transport links between these ports and the region's major cities. • Strengthen transport routes connecting international ports with major cities in each country. • Improve transport capacity, speed and security of Interoceanic Corridors used for exports to North America and Europe. To this end, a land and maritime logistics system on the Pacific coast should be established to connect with Atlantic ports via existing interoceanic corridors. **Prepare common regional strategies:** • Improve trade and transport efficiency by implementing short-term priority actions identified in the ECFCC and Central American Regional Maritime Port Strategy, among others, prioritizing digital transformation. • Improve transport industry capability via training programs for company personnel (safe driving, customs procedures, etc.). • Improve access to information and key indicators and expand planning tools to address human mobility at the regional level, especially in urban centers and industrial development areas. • Promote approval and implementation of multimodal customs procedures.



Term	Key strategies
Medium-term (2026 - 2030)	**Develop new economic centers and strategic corridors** **Increase redundancy in regional logistics systems** • Strengthen capacity to respond to unexpected situations (resilience) via contingency plans and effective coordination, identifying availability of alternate routes and transit modes between cargo origins and destinations. • Develop interior corridor (Strategic Interior Corridor, C2). • Invest in new gateways and interoceanic corridors to meet increasing trade volume with Asia. **Improve transport efficiency and price competitiveness by facilitating transport services** • Introduce truck cabotage. • Negotiate and implement regional Open Skies agreements. • Strengthen existing short sea shipping routes and implement new SSS initiatives. **Support regional and industrial development of the Pacific Corridor** • Update standards and design of strategic regional infrastructure to meet requirements of international transport and logistics systems. • Develop transport infrastructure required to develop the Gulf of Fonseca region. • Develop new deep-water port on the Pacific Coast. • Develop railway transport infrastructure and services. • Rehabilitate and widen roads and bridges at bottleneck points. • Develop roads and storage facilities to promote agriculture and processing industries. • Create new Special Economic Zones (SEZs) for port, airport and railway development. **Enhance Pacific coast port functions** • Develop transport infrastructure to facilitate trade with Asia. • **Develop new interoceanic corridors.** • Promote regional industries (roadside development), in addition to improving transport capacity, speed and safety. • Promote industrial development around ports and airports.

Term	Key strategies
Long-term (2030 - 2035 and beyond)	**Strengthen land-bridge function (connecting Pacific & Atlantic coasts) in Central America.** • Investments needed to improve strategic interoceanic corridors (e.g., dry canal and road development) to develop the Central American region as part of a key global supply chain.
Extender los impactos económicos por toda la región	**Develop Central American region to become part of the supply chain of global companies.** • Develop transport infrastructure to make the region a hub for importing, processing and exporting raw materials. **Establish an advanced transportation system in the Central American region.** • Establish a cold chain to enable wide-area transport of pharmaceuticals, agricultural products and perishable foods. • Establish an intermodal transport system that efficiently utilizes all modes. • Coordinate existing short sea shipping routes to provide a regional SSS system. **Attract investors to develop transport infrastructure and advanced transport service sectors.** • Review relevant legal framework to facilitate private sector participation in development of transport infrastructure and transport service businesses.

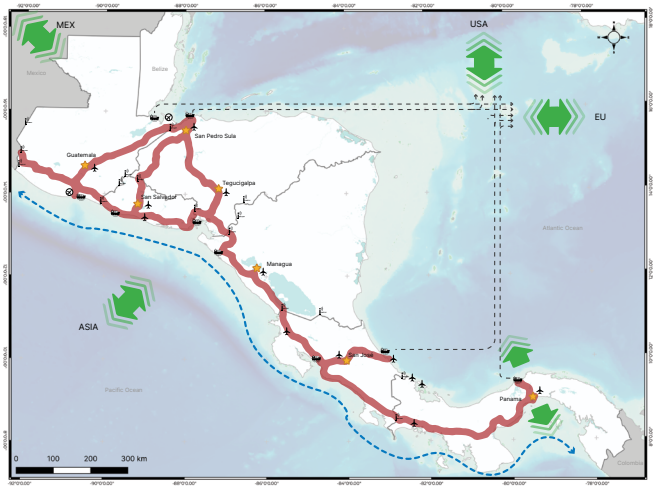


Customs Control, El Salvador.

Infographic 12: Proposal of Chronological Development of Strategic Corridors
Source: JST

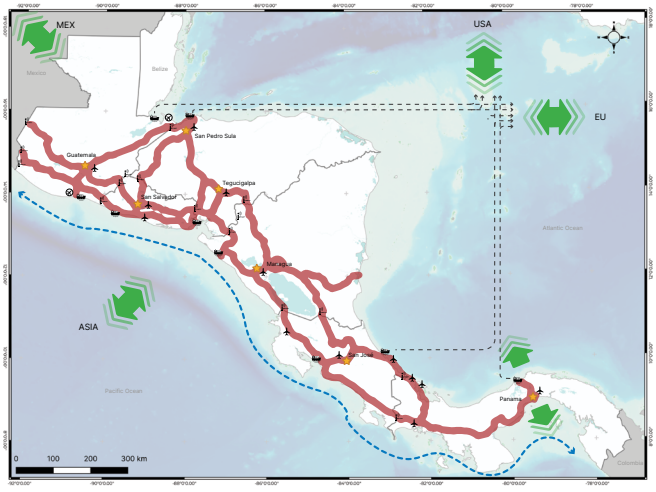
Main Target Market

Short-Term
2025



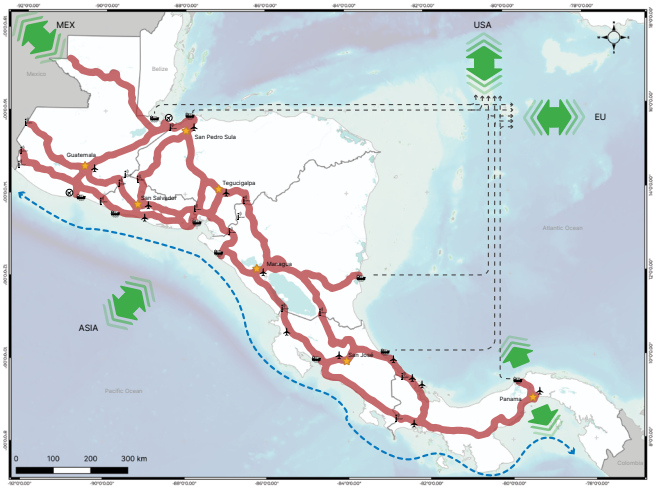
Legend
- Logistics Corridor
- Short Sea Shipping
- Target Trade Activities
- Sea Port
- Airport
- Domestic Airport
- Border Crossing
- Capital City
- Border
- Body of Water

Mid-Term
2030



Legend
- Logistics Corridor
- Short Sea Shipping
- Target Trade Activities
- Sea Port
- Airport
- Domestic Airport
- Border Crossing
- Capital City
- Border
- Body of Water

Long-Term
2035



Legend
- Logistics Corridor
- Short Sea Shipping
- Target Trade Activities
- Sea Port
- Airport
- Domestic Airport
- Border Crossing
- Capital City
- Border
- Body of Water

Rehabilitate and strengthen existing economic corridors.

USA, Mexico and EU

- Rehabilitate and strengthen existing strategic corridors with emphasis on Pacific Corridor.
- Improve links between cities by improving interurban cargo and passenger transport services.
- Strengthen transport capacity and quality via repair and expansion of roads and bridges, construction of corridors and bypasses, creation of distribution centers and development of short sea shipping services.
- Promote multiple transport modes, including short sea shipping and railways, to increase redundancy on Pacific logistics corridor

Develop new economic centers and corridors.

Asia - Pacific

- Develop new economic centers and strategic corridors, including Inland Corridor, new gateways, and interoceanic corridors to serve increased trade with Asia.
- Improve transport efficiency and price competitiveness via introduction of truck cabotage, Open Skies agreements and new short sea shipping routes.
- Support regional and industrial development of Pacific Corridor, including transport infrastructure, new Pacific deep-water port, rail infrastructure and services and rehabilitation and expansion of roads & bridges.
- Improve Pacific coast port operations and develop new interoceanic corridors to promote regional industries and industrial development around ports and airports

Disseminate economic impacts across the region

All Regions

Strengthen land-bridge function in Central American region via investment in strategic inter-oceanic & regional multimodal corridors promoting road, rail, port and airport development in a systemic manner to achieve equitable growth in the region as part of a key global supply chain.



Chapter 5

IMMEDIATE ACTION PLAN (IAP)

Contents

5.1 List of Identified and Prioritized Projects in Level 1 (Regional)
5.2 Project Datasheets

Chapter 5. Immediate Action Plan (IAP)

This chapter addresses short-term actions and all matters to be considered in the first phase of this Master Plan.

The challenges and constraints affecting the regional and national transport and logistics systems are complex and multi-faceted, as many sectors and institutions are involved. They include diverse perspectives and interests that require several types of interventions. As such, programs, projects and actions for the short-, medium- and long-term are considered.

However, it is necessary to recognize that the different actors in the sector demand solutions and give a sense of urgency to many of these proposals. Therefore, the solutions and proposals of this Master Plan must respond to the pressure generated from the need to take advantage of and deepen trade opportunities under competitive conditions, as well as to generate employment, economic growth and social development across the region.

Short-term actions (up to 2025) are defined as those capable of having immediate effects on implementing the Master Plan. This does not mean conducting isolated actions with a partial or irrelevant impact on the transformation of the intended outcome.

To achieve this, the Immediate Action Plan (IAP) is proposed to initiate projects that meet the following criteria:

1. Needed to start implementation of the M/P, as they lay the foundation for the planning process and long-term sustainability.
2. Technically, economically and politically feasible.
3. Proposals for cooperation exist or steps have already been taken for their formulation and implementation.
4. Actions considered highly relevant to solve current performance problems.
5. High-impact or cross-cutting actions in the main subsystems.
6. Have leverage and demonstrative effects, integrating actions that concern the entire transport and logistics chain.
7. Support the Strategic Corridors included in the M/P.
8. Benefit several user segments in a subsystem and have spatial coverage.

The IAP has been grouped into framework projects, which include several complementary actions. The Master Plan will begin with implementation of pilot projects listed and described in the datasheets below.

5.1 List of Identified and Prioritized Projects in Level 1 (Regional)

Table 30: Projects and Thematic Initiatives of the Master Plan

No.	Project ID	Sector	Project
1	MCA1	Port - Maritime	Preparation of port ledgers for Central American Ports.
2	MCA2		Improvements to Central American Maritime Port Statistical Information System (SIEMPCA).
3	MCA4		Short Sea Shipping initiatives
4	VCA1	Road Infrastructure & Land Transport	Updating of regulations and development of cargo vehicle weight and dimension management system
5	VCA3		Common road inventory evaluation system.
6	UCA1	Urban Logistics	Regional truck parking area information platform program.
7	UCA3		Truck driver and cargo safety improvement program.

Source: JST.

In addition to these M/P thematic projects and initiatives, the following are also considered:

- Proposal for a regional model for integration of national railway projects.
- Open Skies Agreement at the regional or sub-regional level (with northern countries of Central America).
- Project for modernization of integrated border posts within the Customs Union framework.
- Central American program for maintenance, rehabilitation and expansion of regional road corridors.



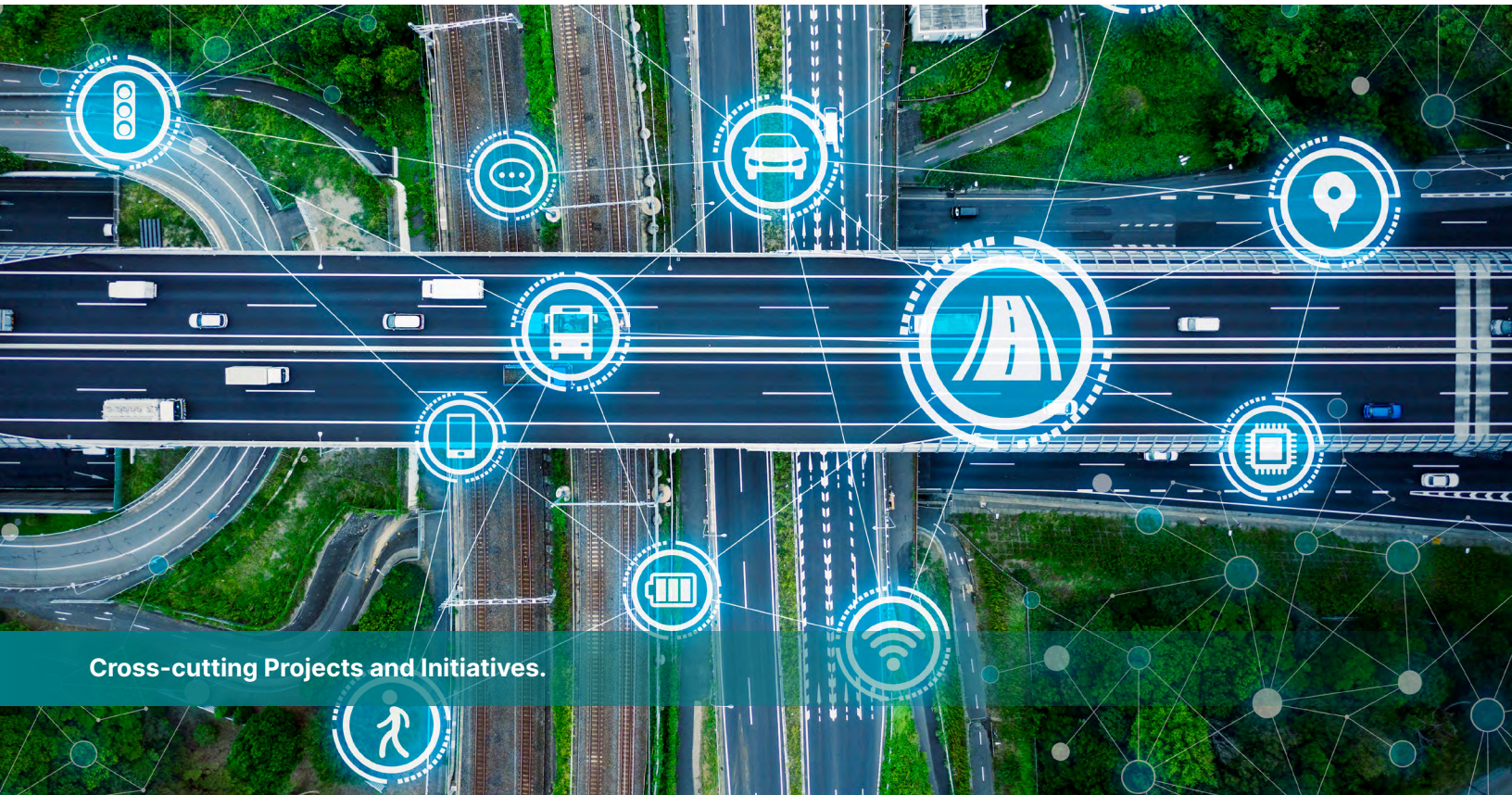
5.1.2 Cross-cutting Projects and Initiatives

Following are cross-cutting projects and initiatives with a strategic vision, aimed to contribute to/facilitate implementation of the identified and prioritized projects in Level 1 (Regional) of the M/P.

Table 31: Cross-cutting Projects and Initiatives

No.	Cross-cutting Projects and Initiatives
8	Support improvement of road connectivity, logistics and integrated infrastructure at One Stop Border Posts (OSBPs) under the Deep Integration process of Guatemala, El Salvador and Honduras.
9	Implement regional mobility & logistics information system (Regional Transport & Logistics Observatory).
10	Strengthen regional capacity-building to implement Regional M/P on Transport & Logistics.
11	Implement resilient transport systems to counter natural disaster threats.
12	Capacity-building for development of Public-Private Partnerships (PPPs).
13	Implement regional strategy to attract investment in transport and logistics.
14	Promotion of advanced technology, digital transformation and innovation of efficient/safe systems to optimize time, costs and procedures.
15	Develop connectivity agenda (transport & logistics) in Deep Integration process of the three northern Central American countries and their connection with the region's southern countries.

Source: SIECA.



Cross-cutting Projects and Initiatives.

5.2 Project Datasheets

Code
MCA1

1. Project Name	Preparation of port ledgers for Central American ports
2. Executing Agency	Regional level: COCATRAM National level: National port authorities

3. Project Description

Preparation of Port Ledgers is based on information that port administrations in each country have regarding ports and port facilities, in accordance with the "Central American Ports Manual" published by COCATRAM. Ledgers include general port information; facility specifications; facility layout; and surrounding environment (road/rail network, economic activities in the hinterland, etc.). COCATRAM compiles each port ledger into a single database that is provided to port users. The project will create a digital repository that can be accessed by stakeholders containing all relevant information.

4. Project Goal

The project involves systematic collection and administration of reliable and updated information on basic issues and physical conditions of the major Central American ports, in unified standards and forms. The objective is to share this information among the key stakeholders and to keep the digital Port Ledger updated.

5. Benefits / Expected Results

- Systematically capture the capacity and functional features of Central American ports.
- Provide information needed to identify/prioritize maintenance and improvement of port facilities.
- Provide fundamental information on port planning and facility design.
- Provide basic data for asset management of port facilities.

6. Recommended Actions

- Collect data from port administrations of each country.
- Develop digital Port Ledger and keep it updated.
- Share Port Ledger data with key stakeholders.

Code

MCA2

1. Project Name	Improvements to Central American maritime & port statistical information system (SIEMPCA).
2. Executing Agency	COCATRAM.

3. Project Description

SIEMPCA project starts with basic design proposal including:

Organization of ports/terminals by destination; definition of port/terminal; improvement of data collection framework; vessel information by size, cargo information by commodity, commodity classification and O/D of cargo; coordination among stakeholders on the concept; and system management, development and operation.

4. Project Goal

To improve SIEMPCA's functions by updating/implementing unified standards/formats to monitor region's port operations

5. Benefits / Expected Results

- Analysis of port activities and port performance in Central American countries in a unified format.
- Identify characteristics of each port and functional assignment in the Central American region.
- Detailed analysis of port-related logistics.
- Provide essential information for port planning.
- Provide basic data to measure and follow-up port performance.

6. Recommended Actions

- Compile and report data regarding cargo throughput; vessel traffic; vessel calls per type; cargo throughput by handling type; container & box trailer throughput; and cruise ship & passenger throughput. Some additional functions are vessel calls by size, cargo throughput by commodity type and origin/destination of cargo, etc.
- Develop specific formats to collect and present standardized information for the Central American Port System.
- Collect data and information regarding vessel calls, cargo, containers and passengers.

Code

MCA4

1. Project Name	Short-Sea Shipping (SSS) initiatives.
2. Executing Agency	COCATRAM and all regional countries.

3. Project Description

The short-sea shipping project is important as it will lay the groundwork for a new multimodal transport system, providing an innovative transport alternative and improving logistics resilience in the region. System is based on COMITRAN resolutions on this matter approving development of action plans to implement SSS in regional countries.

4. Project Goal

Develop new maritime transport services between Central American countries and neighboring regions by establishing an enabling environment that promotes short-sea shipping in the region. This will be achieved by improving data collection, reporting and dissemination systems.

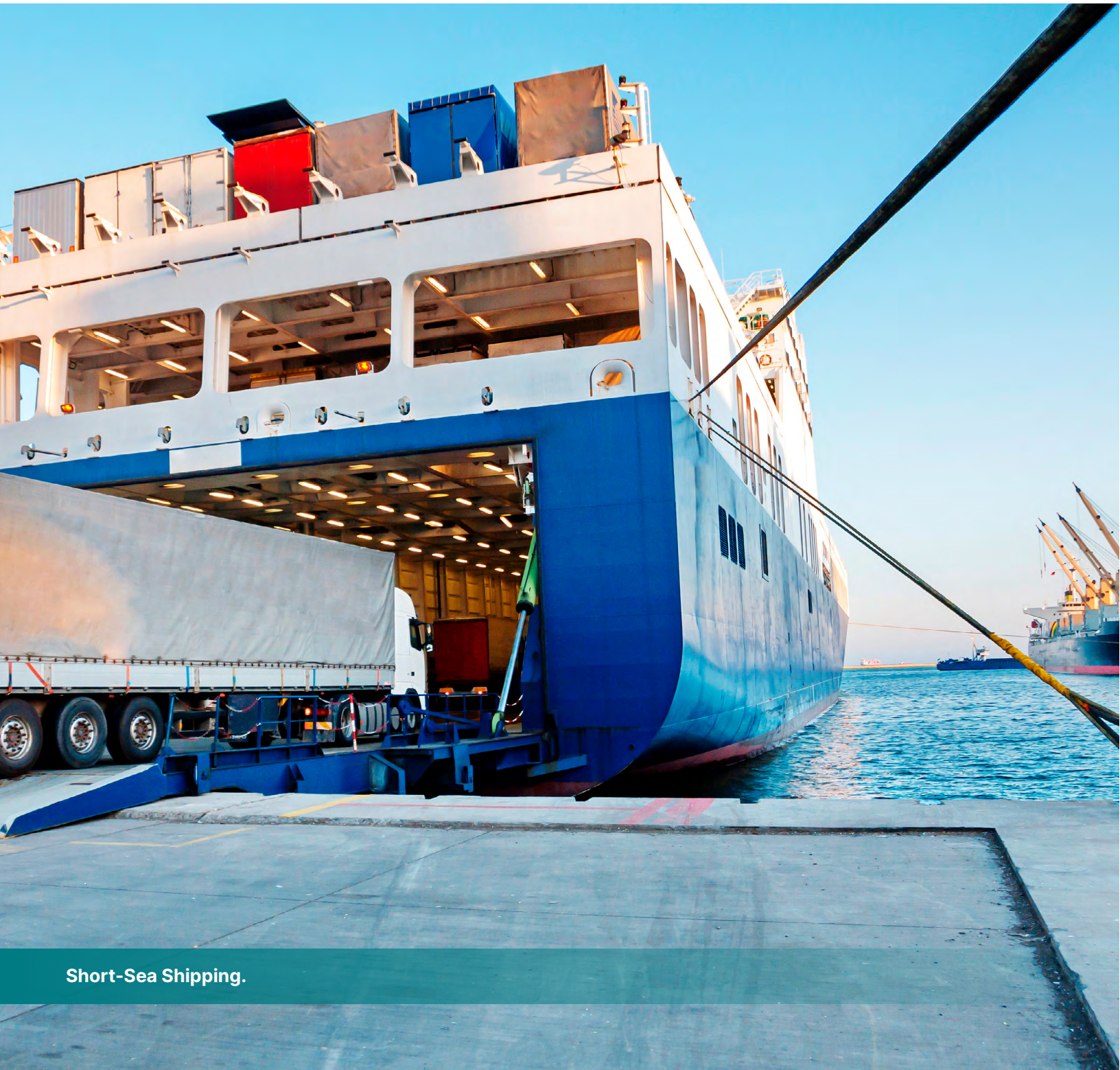
5. Benefits / Expected Results

- Introduce a new logistics system in Central American region.
- Provide multimodal transport services.
- Create redundant logistics networks.
- Contribute to realization of a carbon-neutral economy.
- Savings on investments in road infrastructure and road maintenance.
- Elimination of border crossing waiting times.
- Decongestion of highways.

6. Recommended Actions

- Promote start-up of pilot routes: ferry service between La Unión and Caldera, route between Puerto Quetzal and Chiapas and tri-nation ferry in the Gulf of Fonseca.
- Create SSS facilitation committees at bi-national level (pairs of countries) and in each country of the region.
- Develop Work Plan that provides strategic guidelines for SSS establishment and implementation.
- Identify main commodities being traded between country pairs, plus main exporting companies.
- Promote meetings with potential SSS service providers.
- Review and modernize legal framework (if needed), plus formulate standardized operating procedures defining protocols for berthing, loading, unloading, dispatch, reception, inspections, etc., for ports on each route.
- Define rate schedules specific to projects of this nature.
- Summon all involved parties to set up working groups to address relevant topics.

- Facilitate port facilities and equipment use, ensuring correct operation by national governments; coordinate dialogue among the project's key actors.
- Promote these initiatives among key stakeholders by developing actions to facilitate SSS implementation.
- Define an investment plan for ports participating in SSS initiatives or projects.



Short-Sea Shipping.

Code

VCA1

1. Project Name	Updating regulations & development of cargo vehicle weight & dimension management system
2. Executing Agency	Regional level: SIECA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT & Honduran Institute of Land Transport (IHTT) (Honduras); MTI (Nicaragua); MOP & Transit and Land Transportation Authority of Panama (ATTT)

3. Project Description

In coordinating Cargo Vehicle Weight & Dimension Management System, having the right setup for cargo vehicle weight stations across Central America is vital to ensure region-wide compliance. The project proposes updating current regional regulations and their enforcement in regional countries, as well as capacity-building in the responsible institutions. At the regional level, adjustments to improve conditions related to cargo vehicles should be made.

4. Project Goal

The project proposes updating current regional regulations and their enforcement in the countries of the region, as well as capacity building of the institutions responsible for this matter. At the regional level, adjustments to improve conditions related to the mobility of cargo vehicles should be made.

5. Benefits / Expected Results

- Make cargo-vehicle movement data available, including OD information.
- Savings in capital and operational expenses in terms of maintenance costs.
- Reduction of cargo-vehicle traffic accidents.
- Reduction of environmental pollution.
- Efficient cargo-vehicle transport network in the main Central American corridors with a high volume of trucks, based on cargo transport demand.

6. Recommended Actions

- Collect data and information related to cargo vehicles circulating in Central American countries
- Use the Regional Mobility and Logistics Observatory as a platform to enter data collected
- Follow up on logistics performance indicators, such as: cargo movement times by road, condition of infrastructure, competitiveness indexes and logistics costs, etc.

Code

VCA3

1. Project Name	Common road inventory evaluation system
2. Executing Agency	Regional level: SIECA National level: MOPT/CONAVI (Costa Rica); MOPT/FOVIAL (El Salvador); CIV/ COVIAL (Guatemala); SIT (Honduras); MTI /FOMAV (Nicaragua); MOP (Panama)

3. Project Description

Road asset management is based on analyzing road data related to inventory, road conditions, traffic, unit costs and road deterioration models. Data is entered into a Road Asset Management System (RAMS) that allows the data to be analyzed and optimal budget allocations to be determined.

The project will periodically update the inventory of roads and bridges as data is input to the system. This will be vital for analyzing and assessing current and future conditions of the road network, enabling the development of (priority) maintenance and repair programs for national road networks

4. Project Goal

Frequently update roads & bridges inventory to identify priority areas for rehabilitation and maintenance, as well as investment priorities, by analyzing current and future network conditions. This will enable: enhancing capacity-building of institutions responsible for road & bridge management and operation; estimating economic or engineering feasibility of road/bridge investment projects via pavement life cycle analysis, maintenance & improvement effect along with estimated road-user cost; identifying suitable common policies for the road sector (financing, impact of transport policies, etc.).

5. Benefits / Expected Results

- Mapping of current and future conditions and maintenance costs.
- Reveal future trends for road quality index and other indicators.
- Estimate coverage as a percentage of the network per year.
- Capital and operating cost savings on maintenance.
- Reduce number of traffic accidents.
- Reduce pollution.
- Make up-to-date road conditions across Central America available.

6. Recommended Actions

- Collect road maintenance plans with established processes for their formulation
- Conduct regular meetings with relevant organizations and prepare training plans for staff involved
- Review implementation structure for road maintenance
- Review existing inspection methods and propose suitable common alternatives for all six countries, along with training activities
- Collect relevant data for maintenance planning
- Analyze road condition data based on inspection results
- Conduct detailed investigations of required road sections and repair design
- Calculate economic benefit and required expenditure for maintenance program
- Develop medium- and long-term maintenance plans
- Develop an asset-management program such as HDM-4.

Code

UCA1

1. Project Name	Regional truck parking area information platform program.
2. Executing Agency	To be determined.

3. Project Description

Create a single information platform containing a unified, detailed and up-to-date inventory of truck parking areas offering multiple services: information on truck parking across Central America; availability/ guidance directing users to the nearest available/suitable parking location; reservation system allowing drivers to pre-book a truck parking space.

4. Project Goal

Provide safe/secure areas for truck drivers and maximize use of parking spaces. Existing parking space information will be collected along major corridors in order to develop the parking inventory database.

5. Benefits / Expected Results

- Increase average cargo shipments
- Strengthen small/medium-scale trucking businesses
- Provide safe parking spaces for truck drivers and freight carriers
- Decongest entry routes to major cities in regional countries.

6. Recommended Actions

- Collect truck parking information from various sources
- Identify and prioritize information to be uploaded to unified inventory platform
- Share unified inventory platform with key stakeholders
- Update unified inventory platform on a regular basis



Regional Truck Parking Area Information Platform, Immediate Action Plan (IAP).

Code

UCA3

1. Project Name	Truck driver and cargo safety improvement program.
2. Executing Agency	To be determined

3. Project Description

The Regional Integrated Risk Management System will help identify possible risks in transporting cargo. Plans call for unifying of several functions: authorized economic operators, public service auxiliaries, driver registration, legal modules, creation of data catalogs, importers & exporters, updated forms, early warnings, cargo transport and risk management.

4. Project Goal

The system aims to establish a database of traffic volume and travel speeds in main cities along the 11 strategic corridors, as well as movement data of intra-regional cargo vehicles passing through urban areas by using GPS systems installed in their units. The project also intends to create a legal and regulatory framework, as well as methods to improve safety levels in cargo transport. To this end, a legal framework must be established to develop the GPS truck monitoring system.

5. Benefits / Expected Results

- Improve safety and security for both trucks and drivers
- Monitor working conditions of truck drivers
- Monitor impact of M/P projects
- Provide real-time cargo traceability
- Identify sectors considered high-risk zones
- Implement remedial actions in main corridors and high-risk areas.

6. Recommended Actions

- Collect information from existing GPS systems on trucks.
- Consult with truck operators and cargo consignees.
- Develop a GPS truck monitoring system.



Truck Driver and Cargo Safety.

Number 8

1. Project Name	Improve One Stop Border Posts (OSBPs) under Deep Integration process of Guatemala, El Salvador and Honduras.
2. Executing Agency	Regional level: SIECA. National level: General Directorates of Customs and Ministries of Public Works & Transport of El Salvador, Guatemala and Honduras.

3. Project Description

Proposal aims to implement Immediate Action Plan to improve road connectivity, logistics and integrated infrastructure at nine OSBPs under the Deep Integration process, with the objective of contributing to trade facilitation, investment, competitiveness and economic growth of the three countries and the region.

The project will include actions such as:

1. On-site technical visits
2. Training workshops and work meetings
3. Consultancies to develop plans, designs, products, etc.
4. Consultants to prepare ToR of the works, infrastructure needs, furnishing and signage of OSBPs, with detailed costing and overall budget, as necessary
5. Pre-investment, feasibility and environmental impact studies, etc.
6. Construction of works, etc.
7. Supervision.

The project will prioritize investments in:

- Improvement of access roads, bridges and pedestrian crosswalks.
- Identification of alternative routes in case of emergencies caused by natural disasters.
- Risk-management diagnostic studies and climate-change adaptation measures.
- Construction of auxiliary external lanes on access roads to OSBPs (5 km in both directions).
- Widening of lanes to provide parking areas.
- Build/equip warehouses and cold storage for perishable goods, with physical inspection areas
- Parking areas for internal parking of cargo vehicles, inspection of goods and quarantine facilities, etc.
- Facilities for sterilization at OSBPs and neighboring communities.
- Works to mitigate/prevent landslides and floods at OSBPs where issues have been identified.
- Build/equip “island” checkpoints or control modules, interconnected by pneumatic tube transport system (“Drive-thru banking” type) at OSBPs given limited space for Trade Facilitation Centers.
- Construct arched roofs at OSBP entrances where required.
- Road/infrastructure improvements to OSBP facilities (resurface internal lanes, build retaining walls, sidewalks, etc.), perimeter fencing (sterilization of OSBPs).
- Asphalt resurfacing in OSBP lanes and parking areas.
- Operational (vertical/horizontal) road safety signage on access roads, bridges and at OSBPs.
- Equipment for intrusive & non-intrusive inspection of goods; road scales; hardware/software to automate processes using RFID technology.

4. Project Goal

Support Central American economic integration by contributing to implementation of the customs union between Guatemala, Honduras and El Salvador.

5. Benefits / Expected Results

1. Nine OSBPs with improved road access, parking, signage and integrated infrastructure, as well as being properly equipped for running customs union operations in:
    - Corinto
    - El Florido
    - Agua Caliente
    - Pedro de Alvarado / La Hachadura
    - Valle Nuevo / Las Chinamas
    - San Cristóbal
    - La Ermita / Anguiatú
    - El Poy
    - El Amatillo
2. Provide training via workshops, courses and videoconferences with authorities participating in the Guatemala-Honduras-El Salvador Deep Integration process (short term) and private sector.

6. Recommended Actions

- A profile of the support program is required to formulate an investment plan to improve road connectivity and integrated infrastructure on the nine OSBPs of the northern countries of Central American under the Deep Integration process.
- On-site technical visits to conduct a diagnostic study that includes:
    - Road infrastructure conditions (roads, bridges, pedestrian crosswalks, etc.) on the routes connecting the One Stop Border Posts.
    - Physical infrastructure of customs offices.
- Analysis, investment plan proposal, and financial model.
- Support in the management, execution, and follow-up of identified projects.

Number 9

1. Project Name	Regional mobility and logistics observatory
2. Executing Agency	Regional level: SIECA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT (Honduras); MTI (Nicaragua); MOP (Panama)

3. Project Description

The Observatory will be part of the Regional Mobility & Logistics System, led by COMITRAN in coordination with SIECA. It will provide information on mobility and logistics to governments and other key actors. It will also integrate technical data according to international standards and offer analysis to guide management of mobility, and the design of public policies on transport and mobility. Information will include data on transport infrastructure, public transport services, infrastructure investments and other relevant indicators.

To ensure the quality of the information, a technical group will be set up to define policies, formats and technical requirements, referencing information developed by other cooperating partners. Implementation of the Observatory will be based on existing diagnoses and studies and will strive to consolidate national observatories to ensure sustainability.

4. Project Goal

To have a specialized unit within SIECA's Directorate of Transport, Infrastructure & Logistics (DITIL) to provide timely and objective information on progress of the Master Plan's execution, as well as the status of transport, mobility and logistics infrastructure and services in the region.

5. Benefits / Expected Results

- Generate capacities to follow-up and evaluate implementation of the Master Plan.
- Ensure availability of information related to transport and logistics, based on data provided by public institutions, transport operators, infrastructure managers and other logistics chain stakeholders.
- Provide data and information in a regional consultation decision-making tool.
- Facilitate analysis, mobility management and improvement of the design of sustainable mobility solutions.
- Provide geo-referenced maps of logistics infrastructure in the region.
- Follow up on logistics performance indicators of regional countries.

6. Recommended Actions

- Develop a project profile and manage technical assistance or specialized consultancies.
- Design regional information system on transport and logistics for COMITRAN/SIECA Regional Observatory including interfaces to be integrated into information platforms of the six countries and other regional platforms.
- Conduct consultancies to integrate new layers of information on multimodal transport infrastructure in Central America into the project currently underway with the support of ECLAC-SE COSEFIN and COSUDE.
- Develop information and indicators based on land, maritime, airport and railway infrastructure in the six countries.
- Generate transport and logistics indicators within the M/P framework.

Number 10

1. Project Name	Strengthen capacity-building to implement Regional Master Plan.
2. Executing Agency	Regional level: SIECA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT (Honduras); MTI (Nicaragua); MOP (Panama)

3. Project Description

The M/P includes capacity-building measures for regulations, institutional organization, human resources, data generation and tools for promoting the identified projects. At the regional level, it includes reorganization of DITIL as a unit to formulate and manage regional projects, as well as the management of financing. In this regard, an institutional development study will be conducted to assess the workload for SIECA to implement the Framework Policy and its Master Plan, which, in turn, will structure a proposed organization chart for DITIL, and strengthen other SIECA administrative units involved in the implementation of these regional instruments.

At the national level, institutional strengthening (regulatory, institutional, human and technological resources) of the MOPs is needed to implement and follow-up on projects and the M/P.

The project will promote an education and training program on the subject matter, help foster information sharing among ministries and sectoral technical entities, plus promote studies for diagnostics and proposals to strengthen this component. The experience of international financial organizations in these areas, as well as non-refundable technical cooperation, will be used to this end. Likewise, a capacity inventory will be prepared at the level of universities, research & think tanks and regional centers, etc.

The experience of SIECA will be strengthened to design, deliver and support training and capacity-building in the areas of cargo transport and logistics, including content and implementation-related issues. The objective is to strengthen the public sector teams of Member States of the Economic Integration Subsystem that work on cargo logistics issues in their countries.

4. Project Goal

Strengthen capacity-building for the Ministries of Public Works & Transport and SIECA to implement the Regional Master Plan on Mobility and Logistics 2035.

5. Benefits / Expected Results

- Installed capacities in the regional institutions involved in the implementation of the M/P.

6. Recommended Actions

- A profile of the support program is required for implementation of the Master Plan at both regional & national levels
- Manage international cooperation
- Implement specific consultancies/studies for institutional regulations, regulatory framework, training & capacity-building, generation of data & statistics and indicators for the monitoring and evaluation system, etc.

Number 11

1. Project Name	Resilient transport systems to counter natural-disaster threats.
2. Executing Agency	Regional level: SIECA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT (Honduras); MTI (Nicaragua); MOP (Panama)

3. Project Description

Enhance regional capacity-building and mechanisms for integrated disaster-risk management in planning and public investment processes. This is based on the social, economic, environmental and political-institutional aspects of development, in order to create comprehensive safety conditions. Application of updated regional technical regulations to ensure proper conditions for transport and infrastructure resilience developed in collaboration with the Japan International Cooperation Agency (JICA) will be promoted. COSEFIN/ECLAC and COMITRAN/SIECA will coordinate in developing tools and guidelines for risk management and adaptation to climate change in the entire planning, design, financing, execution and maintenance of road infrastructure.

4. Project Goal

Create resilient infrastructure designed to meet disaster threats, adapted to climate change and consistent with goals to reduce greenhouse gas emissions in the transport sector.

5. Benefits / Expected Results

- Improved disaster-risk management
- Increased comprehensive security
- Greater adaptation to climate change
- Strengthened regional cooperation on road infrastructure and transport

6. Recommended Actions

- Prepare profile of the support program for implementation of risk management and adaptation to climate change, plus promotion of sustainable transport resulting from Master Plan implementation at regional and national levels
- Manage international cooperation
- Carry out consultancies/studies specific to institutional regulations, regulatory framework, education & training, generation of data/statistics & indicators on risk management and climate-change adaptation, plus monitoring and evaluation, etc.
- Update regional regulations on road infrastructure
- Propose regulations and technical manuals for risk management and climate-change adaptation in key sectors: port-maritime, aeronautical-airport, road infrastructure & land transport, rail transport, coordinated border management, urban logistics, etc.

Number 12

1. Project Name	Capacity-building for development of Public-Private Partnerships (PPPs).
2. Executing Agency	Regional level: SIECA National level: MOPT, CINDE, CNC (Costa Rica); MOPT, PROESA (El Salvador); CIV, ANADIE, Invest in Guatemala (Guatemala); SIT, SAAP (Honduras); MTI, SPIE (Nicaragua); MOP, Pro Panama (Panama) plus Ministries of Treasury or Finance.

3. Project Description

Technical Assistance (TA) implementation in the framework of Public-Private Partnerships (PPPs) is coordinated in the region by SIECA in collaboration with development banks and cooperation agencies. The objectives of TA include creation of a regional network for promotion of PPP-based investment, strengthening management capacities, supporting preparation of financing plans, promoting staff training & capacity-building and addressing institutional framework standardization and recycling of transport infrastructure assets. TA seeks to share a long-term vision, establish a standardized institutional framework, incorporate development banks and address challenges of asset recycling and other alternative financing mechanisms, as well as asset identification & appraisal, governance & transparency in the contracting process and associated policy challenges.

4. Project Goal

Generate innovative PPP funding models at the regional level within the integration process.

5. Benefits / Expected Results

- Foster PPP-based investments in transport infrastructure
- Improve the institutional framework for PPPs
- Facilitate access to funding and technical resources
- Build capacity and leverage existing assets, aiming to have a positive impact on the region's development and the quality of transport infrastructure.

6. Recommended Actions

- A support program profile is required for technical assistance in order to implement a PPP program to support the project portfolio and M/P execution at both the regional and national levels
- Manage international cooperation
- Select and prioritize regional, subregional and national PPP projects
- Implement consultancies/studies specifically designed for institutional capacity-building in investment promotion agencies, PPP mechanisms and ministries of public works & transportation, regulatory frameworks, training & capacity-building, generation of data, statistics and indicators, as well as their monitoring and evaluation, etc.

Number 13

1. Project Name	Regional strategy to attract investment in mobility and logistics.
2. Executing Agency	Regional level: SIECA National level: MOPT, CINDE, CNC (Costa Rica); MOPT, PROESA (El Salvador); CIV, ANADIE, Invest In Guatemala (Guatemala); SIT, SAAP (Honduras); MTI, SPIE (Nicaragua); MOP, Pro Panama (Panama).

3. Project Description

Aim is to develop a regional strategy to attract investment to fund the M/P projects, as well as to develop roadmaps for implementation of identified actions and projects considering public financing, international cooperation and PPPs. With PPPs, it will be necessary to work on regional investment strategies in collaboration with Ministries of Finance and national investment promotion agencies. Implementation will include regional promotion activities in Central America (or other territories with key international stakeholders) to promote interest in investing in the region or specific countries.

4. Project Goal

Create an investment attraction strategy to implement M/P projects at the international cooperation level to undertake national, regional or international PPP investments.

5. Benefits / Expected Results

- Investment attraction
- Access to funding
- Regional development
- Employment generation
- Improve infrastructure and knowledge transfer, contributing to regional economic and social development

6. Recommended Actions

- Prepare PPP project portfolios at the regional, subregional or national levels.
- Elaborate diagnosis and regional investment attraction strategy to implement Regional Master Plan.
- Implement specific consultancies/studies for institutional capacity-building in investment promotion agencies, PPP mechanisms and ministries of public works and transport as well as sectoral authorities.

Number 14

1. Project Name	Promote advanced technology, digital transformation and efficient/safe systems to optimize time, costs and procedures
2. Executing Agency	Regional level SIECA, COMTELCA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT (Honduras); MTI (Nicaragua); MOP (Panama).

3. Project Description

The aim is to form a joint agenda between COMTELCA and COMITRAN for digital transformation in transportation and logistics in Central America. Initiatives include strengthening digital trade platforms, improving single windows for foreign trade, implementing port community systems, promoting electronic technologies in urban logistics, adopting RFID and GPS technologies in transportation, improving security through digital technology and using IT to improve transit in cities and at border crossings. It is important to conduct process analysis and re-engineering to ensure effectiveness of solutions proposed in the digitalization process.

4. Project Goal

Promote digital transformation in the region's transportation and logistics, encouraging use of advanced technology and innovation of efficient/secure systems to optimize time, costs and procedures.

5. Benefits / Expected Results

- Improve efficiency, effectiveness and security of trade and logistics processes.
- Greater transparency and reduction of bureaucracy in customs and foreign trade processes.
- Optimize management of logistics infrastructure (e.g., ports & airports) with electronic systems and advanced technologies.
- Increase security in the transport and traceability of cargo.
- Improve traffic planning and management in cities and at border crossings.
- Encourage adoption of technologies such as RFID, GPS in transport and logistics to boost competitiveness of the sector.
- Potentially attract investment and develop technology industry in the region.
- Real-time traceability of goods.

6. Recommended Actions

- Elaborate project profile proposal jointly with SE COMTELCA.
- Manage international cooperation for project implementation.
- Share initiative with public and private stakeholders.
- Promote development of training, capacity-building, institutional strengthening and other initiatives to develop.
- digital agenda in the region's transport, mobility and logistics systems.
- Prepare diagnosis and regional strategy for digitalization in transport and logistics agenda.

Number 15

1. Project Name	Development of connectivity agenda in the Deep Integration process of the three northern Central American countries and their connection with the region's southern countries.
2. Executing Agency	Regional level: SIECA National level: MOPT (Costa Rica); MOPT (El Salvador); CIV (Guatemala); SIT (Honduras); MTI (Nicaragua); MOP (Panama).

3. Project Description

Project will enhance progress achieved in the customs union process, intra-regional trade, competitiveness and economic & social development.

Proposal is to implement presidential agreement, with support of SIECA and international cooperation, to develop joint actions to enhance connectivity in the three northern Central American countries. To this end, two things must be ensured: a) that road corridors linking the three countries are in good condition to ensure the flow of trade in an agile/safe manner; b) accessibility and connectivity of border crossings. Complementary transport modes (ship, plane and rail) should also be developed or strengthened, along with multimodal transport. Plus, priority should be placed on infrastructure investment projects that can boost competitiveness, productive development, investment attraction and job creation. Pilot projects identified in the M/P should also be prioritized.

4. Project Goal

Develop connectivity and logistics program to strengthen the Deep Integration process between Guatemala, Honduras and El Salvador, including development of road, port-maritime, airport-aeronautical and rail links, as well as the interoperability of national mobility and logistics projects in the three countries.

5. Benefits / Expected Results

- Strengthen regional integration in the three northern Central American countries.
- Promote trade.
- Improve competitiveness.
- Promote economic and social development.

6. Recommended Actions

- To advance this agenda, a regional technical working group including the ministries of Public Works & Transport should be established, along with technical working groups for each transport mode (road, aviation, rail, port-maritime, etc.) or by project. Visits to primary regional road corridors and border crossings that link the main logistic nodes (cities, ports, airports, cargo terminals, border crossings, etc.) will be organized to assess the current situation and identify likely projects for this agenda.



Chapter 6

REQUIRED INVESTMENT AND FUNDING MECHANISMS

Contents

6.1 Required Investment and Funding Mechanisms
6.2 Financial Framework.
6.3 Financing with Public Funds.
6.4 Funding with Mixed and Private Funds.
6.5 Regional Pre-Investment Fund for Infrastructure Projects.
6.6 Implementation of M/P Funding Mechanisms via PPP.
6.7 Coordination of Financial & Technical Cooperation Efforts

Chapter 6. Required Investment & Funding Mechanisms.

This chapter addresses aspects related to investment amounts required to fund Master Plan projects, and the available funding mechanisms. The estimated total required amount (USD 52 billion) includes costs by type of infrastructure and mechanisms available or suggested for its location. The formulation of this proposal considers the fiscal framework and national policies, as well as the indebtedness levels of each country, to prepare this proposal to fund the prioritized projects. It provides, in a non-binding manner, various financial mechanisms that Central American governments may use to avoid increasing public debt, as far as possible, by using public-private partnerships (PPPs) and other types of instruments and alternative funding mechanisms that have been successfully used in other parts of the world.

The analysis shows that, although the region can reap significant economic benefits from carrying out the proposed M/P investments, using only traditional methods of public borrowing would result in significant gaps in their implementation. According to available resources, including international funding sources, sovereign guarantees can only be sufficient to cover part of the required investment in the expected time frame. Consequently, this chapter analyzes the minimum conditions necessary to establish PPPs, which allow access to mixed capital. It also explores other innovative mechanisms used successfully in other countries, such as asset recycling, capital gains recovery for urban projects and institutional investments.

All these mechanisms are promising. However, it will be necessary to strengthen regional capacities to pitch and manage attractive and bankable projects that allow for the required financial leverage. For illustrative purposes, a matrix is presented that preliminarily identifies some methods that may be considered for funding the 11 strategic corridors described in Chapter 4. This chapter ends with a concrete proposal for technical assistance to strengthen a regional network of PPP investment agencies. Achievement of the technical assistance objectives is considered a precondition for success in securing the resources from alternative funding sources required to implement the M/P projects.

6.1 Required Investment and Funding Mechanisms

To realize the vision and strategic objectives set out in the M/P, it is first necessary to estimate the resources required. As described in Chapter 4, M/P implementation requires funding for pre-investment studies, design, planning, monitoring & evaluation, as well as for the rehabilitation, expansion, construction and maintenance of transport infrastructure, plus acquisition of equipment necessary for the 374 projects along the 11 strategic multimodal corridors.

In addition, as described in Chapter 3, funding is required for the projects and initiatives contemplated in the short, medium and long terms.

6.1.1 Estimates of Required Investment

A global estimate determined the total cost of implementing the M/P, from its adoption until 2035, can be estimated at USD 52.488 billion (at 2022 rates). As shown in Table 29, the road infrastructure & land transport sector requires the most significant investment – 38% of the total cost. The railway sector represents the second most significant amount, 31% of the total cost, mostly concentrated in the three northern countries and Costa Rica. Infrastructure investments in the maritime-port sector represent 20% of the total, followed by the aeronautical & airport sector, at about 8% of the total.

As the amount of investment in the three northern countries represents approximately 56% of the total investment cost, implementation of the M/P is expected to accelerate economic growth in these countries.

Table 32: Investments required to implement the M/P by sectoral axis (in millions of USD).

	CR	SV	GT	HN	NI	PA	TOTAL
Road infrastructure & land transport	3,158	5,800	2,982	1,093	3,378	3,325	**19,745**
Maritime - port	1,423	632	903	2,418	1,040	4,361	**10,789**
Aeronautical - airport	656	2,113	171	37	1,193	17	**4,187**
Railways	4,092	1,837	8,801	1,421	1	0	**16,152**
Coordinated border management	17	35	81	52	52	7	**244**
Urban logistics	283	88	290	663	20	48	**1,392**
Total	**9,629**	**10,505**	**13,228**	**5,683**	**5,684**	**7,758**	**52,488**

Fuente: JST.

As shown by the table above, investment requirements vary by transport axis, the general condition of existing infrastructure and other strategic considerations of each regional country.

6.1.2 Time Investment Required

As discussed in Chapter 3, this M/P has a time dimension defined for the short, medium and long terms. Table 30 below shows required investment amounts by country.

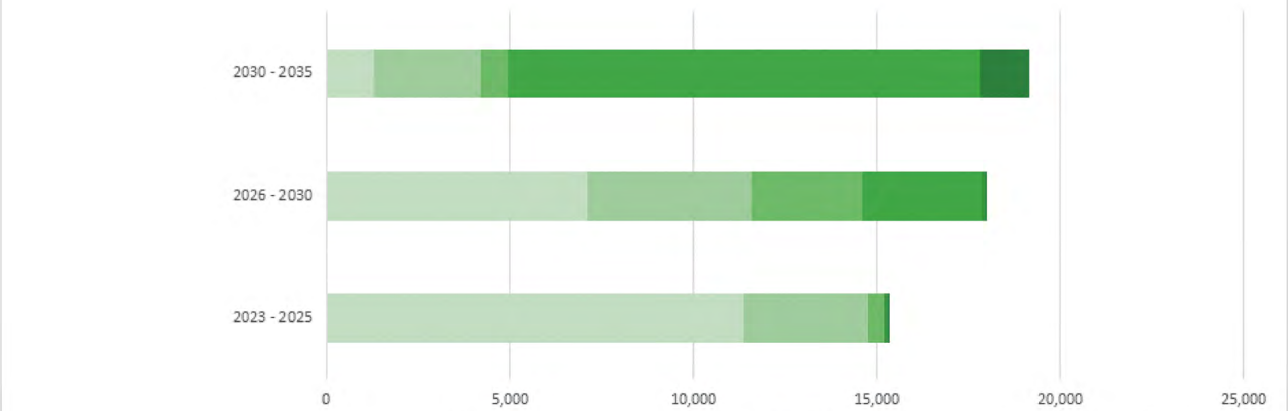
Table 33: Total investments required by country and time period (in millions of USD).

Country	2023-2025	2026-2030	2030-2035	TOTAL
Costa Rica	3,106	2,052	4,451	9,609
El Salvador	2,430	5,609	2,428	10,467
Guatemala	2,255	3,096	7,840	13,191
Honduras	1,567	1,612	2,473	5,652
Nicaragua	2,587	2,608	446	5,641
Panama	3,257	2,951	1,720	7,928
Central America	15,202	17,928	19,358	52,488

Source: JST.

An analysis of the funding requirements shows that the total amounts are relatively balanced, although the commitments per country vary significantly depending on the projects that trigger each stage. As shown in Graph 16, the short-term emphasis is on investment in the road infrastructure & land transport and port-maritime sectors (USD 11.3 & 3.4 billion, respectively). Medium-term investments in both sectors are maintained (USD 7.1 and 4.5 billion, respectively), but further investments are added to the aeronautical & airport sector (USD 3 billion) and railways (USD 3.2 billion). In the long-term period the most significant investments are for the railway sector (USD 12.9 billion).

Graph 16: Estimated investment required for implementation by phase and sector (USD million)



	2023 - 2025	2026 - 2030	2030 - 2035
Road Infrastructure and Land Transport Axis	11,347	7,107	1,290
Port - Maritime Axis	3,401	4,482	2,907
Aeronautical - Airport Axis	436	3,016	732
Railway Transport Axis	2	3,257	12,892
Coordinated Border Management Axis	128	115	0
Urban Logistics Axis	43	16	1,339

Source: JST with information provided by the ministries of public works and transport of the six countries

6.2 Financial Framework

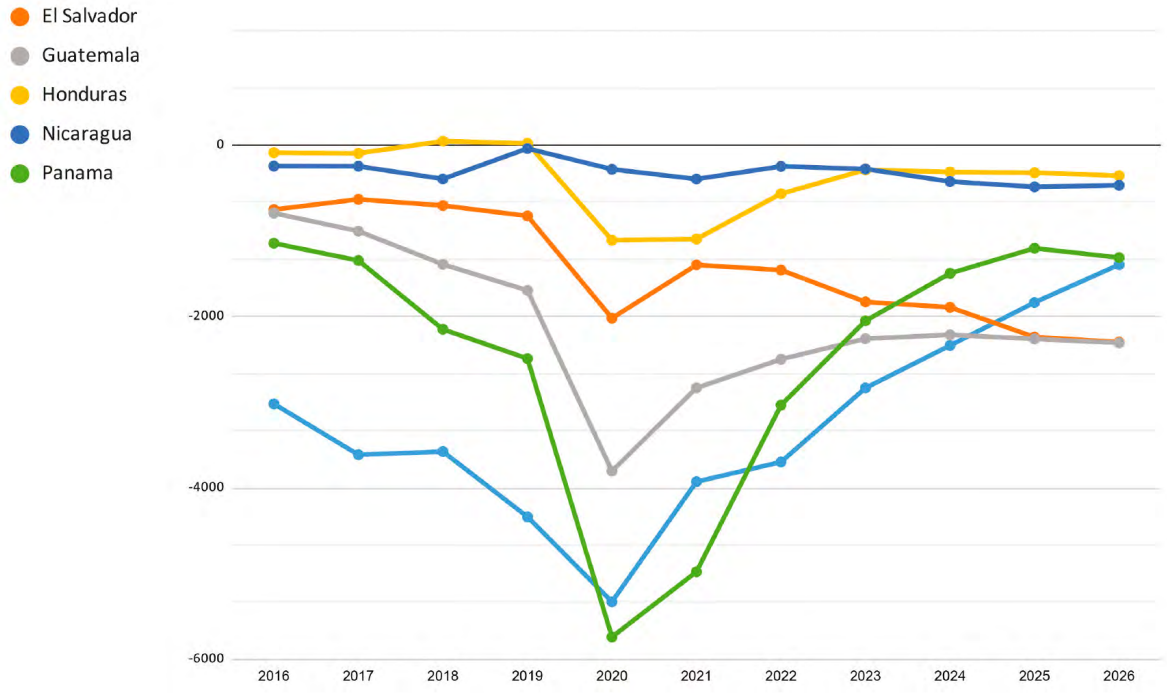
The financial framework of this M/P seeks to innovate project implementation via systemic and holistic execution, according to the proposed schedule. This starts with understanding each country's financial capacity and finding funding plans that can be adapted to the specific needs of each project.

Traditionally, most of the proposed projects could be executed through public funding, including public spending, bond issuance and loans from international financial institutions. However, the M/P also considers other alternatives such as PPPs, which are analyzed throughout this chapter.

6.2.1 National Funding

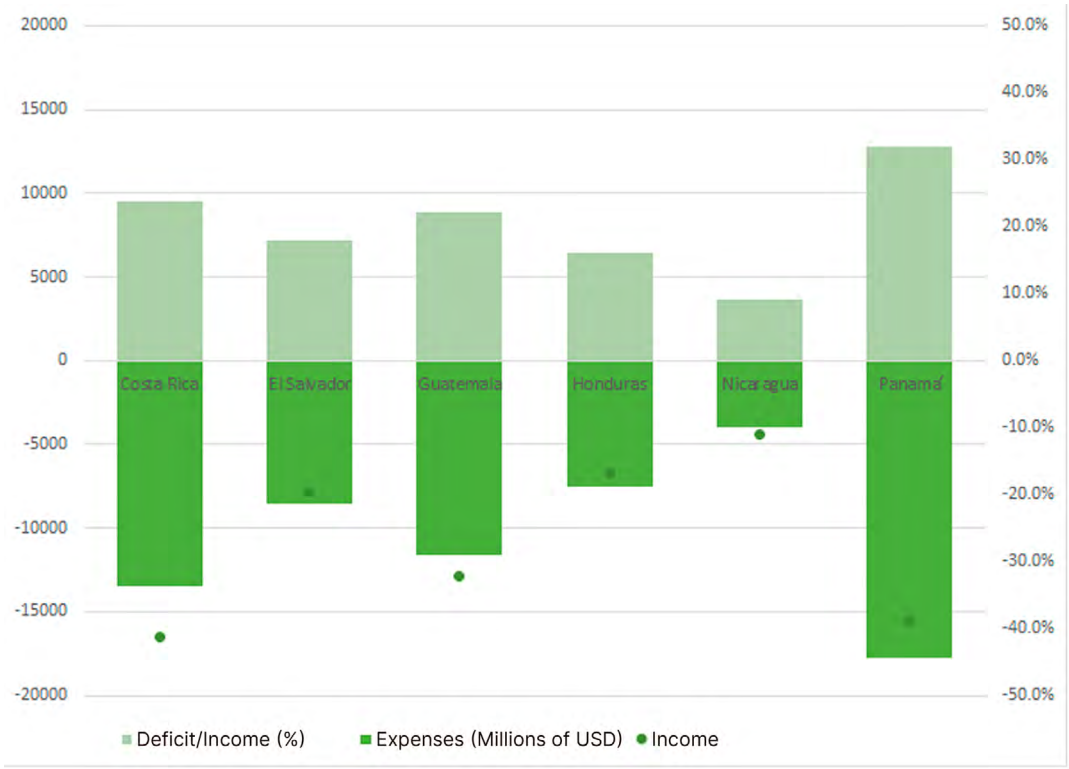
As shown in Graph 17, Central American countries have faced chronic budget deficits in recent years. And, as with the rest of the world, the negative economic impact of COVID-19 has exacerbated this trend.

Graph 17: Projections of state revenues and expenditures (in millions of USD)



Source: JST with data from World Bank, World Development Indicators (WDI)

Graph 18: National revenues and expenditures 2021 (USD million)

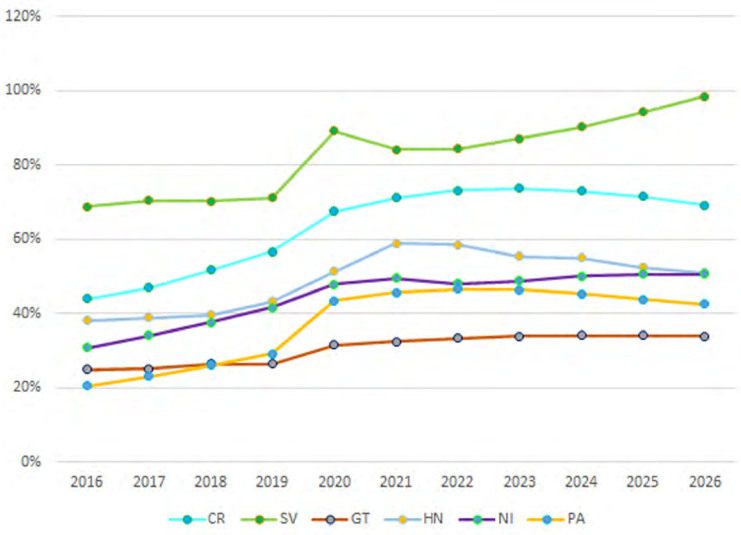


Source: JST with data from ECLAC and IMF/World Economic Outlook (WEO)

As Graph 18 shows, in 2021 the national budgets of all six governments registered deficits in their revenue/expenditure ratio, ranging from -10.9% to -41.3%.

Finally, it is important to note the variation between countries in terms of transport sector investments, with Panama being the country with the highest investment in this sector in 2021.

Graph 19: Index of indebtedness, historical & projected (2016-2026)



As shown in Graph 19, the level of accumulated historical debt for Central America is variable and shows an upward trend as a result of annual budget deficits.

According to the FMS, Central American countries should adopt fiscal consolidation policies, such as broadening the tax revenue base, improving targeting of subsidies and revamping the public-sector wage structure to restore each country's budgetary position to sound and sustainable levels.

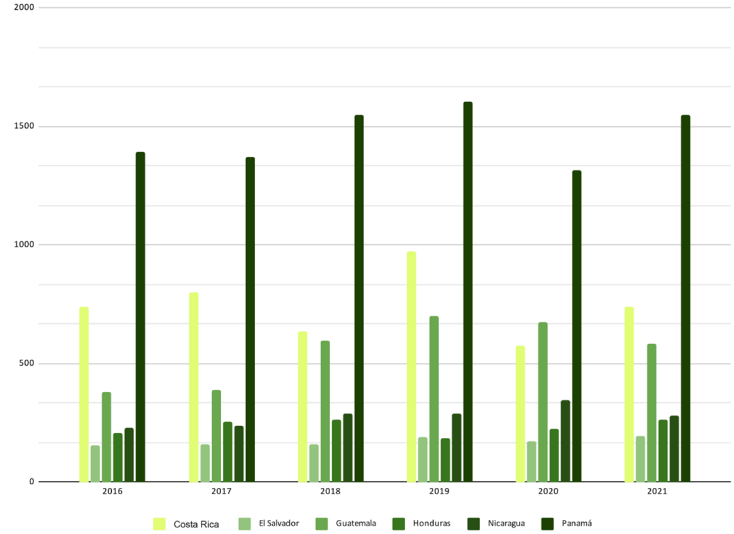
As all these efforts are made to restore fiscal soundness, the challenge will be how to secure funding for transport infrastructure development. While the possibility of acquiring loans remains an alternative, it is important to recognize that the caps are insufficient compared to the amount of investment required to implement this M/P.

Source: JST with data from ECLAC and IMF/World Economic Outlook (WEO)

6.2.2 Public Sector Capital Expenditure

Average annual public sector capital spending in the transport sector in Central America between 2016 and 2021 was 1.31% of GDP, ranging from the lowest in El Salvador (0.67%) to the highest in Panama (2.30%).

Graph 20: Public investment in the transport sector (USD million).



Annual government capital spending on the transport sector between 2016 and 2021 was 6.2% of total gross fixed capital formation in Central America, ranging from a low of 3.8% in El Salvador to a high of 9.7% in Nicaragua. In future, these investment levels will be bench-marks for each country when monitoring M/P implementation.

Source: JST with ECLAC data from Central Banks of Guatemala and Panama

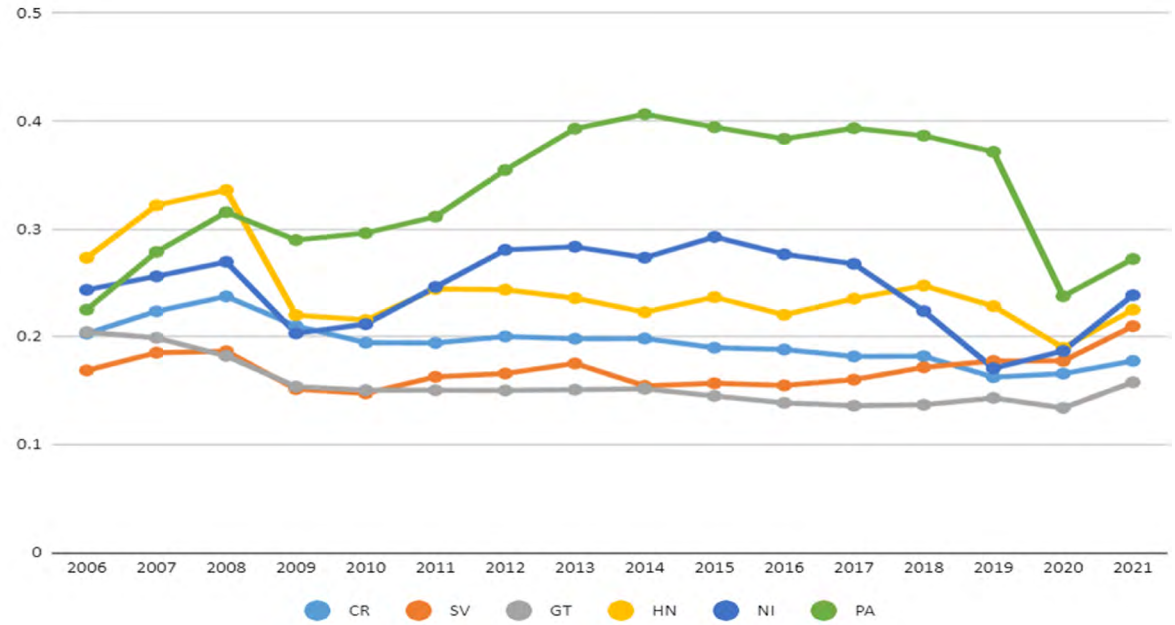
6.2.3 Gross Fixed Capital Formation (GFCF)

Gross Fixed Capital Formation (GFCF) is defined as the value of assets produced in a given period (1 year), including transport infrastructure, e.g., ports, airports, railways, roads and associated equipment, such as construction machinery, vessels, aircraft and rail cars, as well as other assets, such as residential housing, office buildings, shopping centers, factories, schools and hospitals.

The GFCF to GDP ratio reveals the efficiency of the country's investment.

The average GFCF/GDP ratio over the last 10 years (2012-2021) ranges from 14.4% in Guatemala to 35.9% in Panama, the latter being very high compared to other countries in the region.

Graph 21: GFCF / current GDP



Source: ECLAC database and central banks of Guatemala and Panama.

Following the GDP growth target rates established as the equitable growth scenario proposed in BI/F1, this M/P has calculated the corresponding expected investment (gross fixed capital formation) to achieve these rates in each country.

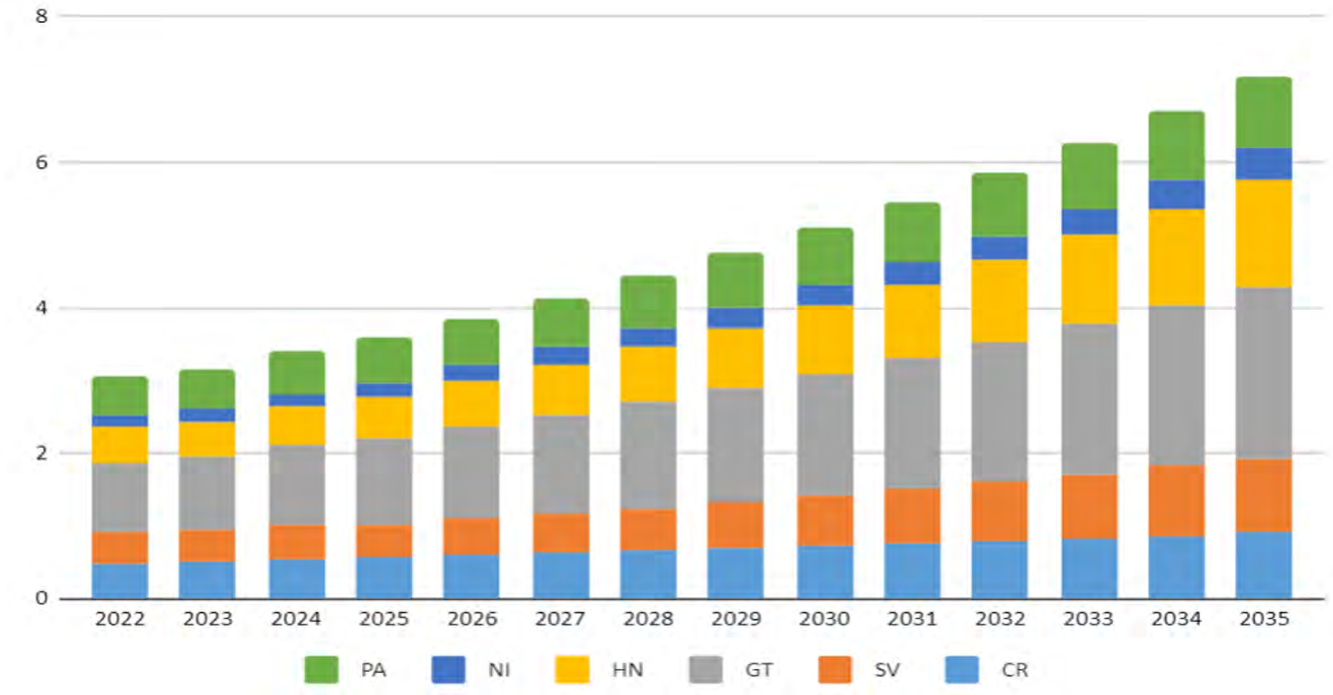
The investment forecast scale for the transport sector between 2022 and 2035 was estimated using the Incremental Capital Output Ratio (ICOR) approach. This indicator describes the efficiency of investment relative to the amount of investment made in the economy and the resulting increase in GDP.

The ICOR[1] used in this Plan is 3.0, using as reference the experiences of Asian countries to achieve high economic growth between 1961 and 2010. It is also assumed that the GFCF of the transport sector is 4.0% of the total GFCF.

1 Assumptions used in the formula to estimate the expected scale of investment were: (1) ICOR=3.0, (2) GDP growth, (3) total GFCF = (1) x (2) (4) transportation sector GFCF = 4.0% % of total GFCF.Assumptions used in the formula to estimate the expected scale of investment were: (1) ICOR=3.0, (2) GDP growth, (3) total GFCF = (1) x (2) (4) transportation sector GFCF = 4.0% % of total GFCF.

Expected capital investment in Central America from 2022 to 2035, including public and private investments, is estimated at USD 66.9 billion. Costa Rica requires investment of USD 9.5 billion, El Salvador USD 9.1 billion, Guatemala USD 22 billion, Honduras USD 12.1 billion, Nicaragua USD 3.8 billion and Panama USD 10.3 billion to reach the target economic growth rate.

Graph 22: GFCF projection



Source: JST

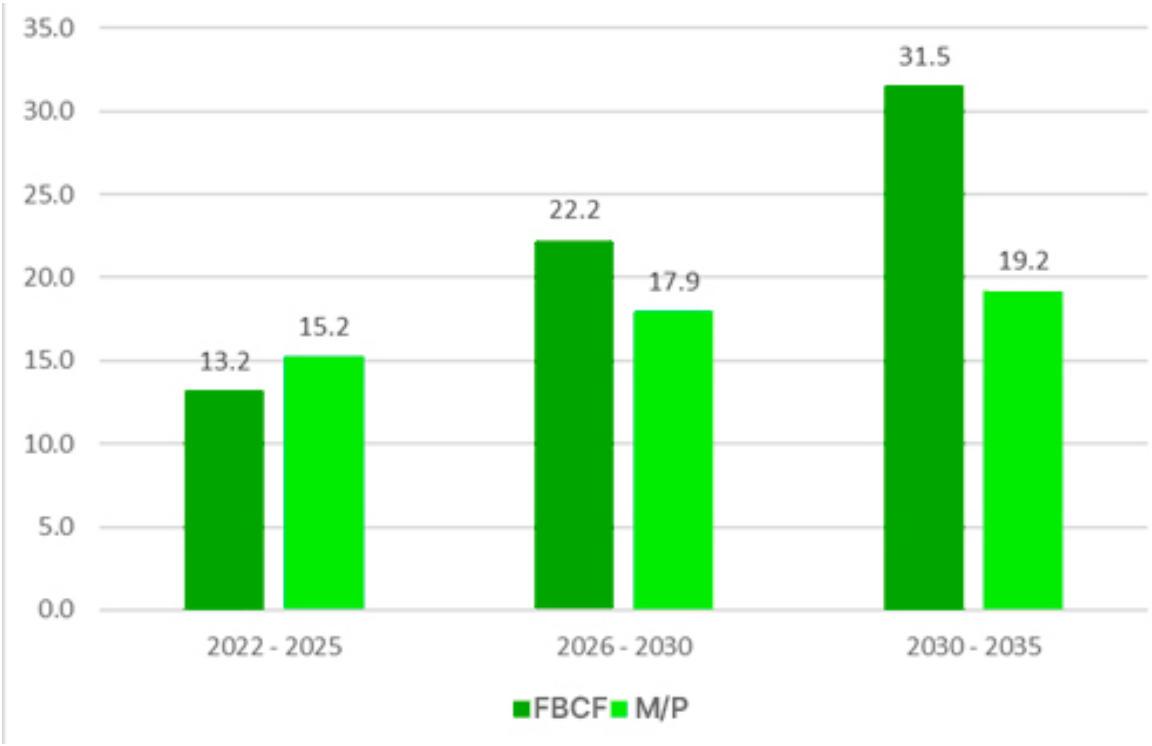
6.2.4 Project Estimates vs. Expected GFCF

The estimated GFCF of USD 66.9 billion is the total capital investment that must be made in the transport sector to achieve the target GDP between 2022 & 2035, including both public- and private-sector investments.

The total investment proposed in the M/P (USD 52.488 billion) is lower than the expected GFCF. In other words, more investment is expected in the transport sector than proposed in this M/P, especially from the private sector.

The investment proposed in the M/P for 2022-2025 is USD 15.2 billion, above the GFCF expected during the same period. In this regard, greater public-sector participation is expected to be complemented by innovative funding mechanisms during this initial stage. The contribution of the private sector is indispensable and is expected to be more prevalent in the next stage of the M/P to cover the difference between the projected

Graph 23: Expected GFCF compared to M/P investment (USD billions).



Source: JST.

GFCF and the M/P investment.

6.3 Financing with Public Funds

6.3.1 Financing with National Funds

The regional countries have made significant investments in infrastructure maintenance using public funds, both from regular budgets, which are primarily managed by the ministries of public works & transport, and by municipalities from local government budgets. In some countries, specific funds are earmarked from taxes for maintaining roads and other infrastructure such as airports and ports. Still, resources are generally insufficient and only cover operations and maintenance. It is important to note the role that local governments play in constructing and maintaining infrastructure and transport in urban contexts since, in most countries, road maintenance in cities and towns is the responsibility of local governments.

6.3.2 Sovereign Debt

As mentioned above, the borrowing capacity that could be allocated to the transport sector at this time is estimated to be USD 19.1 billion, or 36% of the M/P requirement. In this regard, these funds could only be available after 2-to-5 years since all multilateral loans involve a period of preparation, approval and entry into force.

The regional countries have enjoyed open credit windows from various development banks, with the Central American Bank for Economic Integration (CABEI), Inter-American Development Bank (IADB) and World Bank

being the most active in the region's transport and logistics sector.

IADB commitment in the transport sector between 2010 & 2022 (12 years) was USD 3.48 billion, or USD 290 million per year. Therefore, assuming a similar level of future IADB funding, one could expect around USD 3.8 billion (about 7% of the M/P projects) for 2022-2035. The bank can finance projects through sovereign guaranteed loans.

CABEI offers various financial instruments including grants, loans, equity and quasi-equity investments and derivative instruments. Its 2020-2024 institutional strategy has regional integration as its strategic axis, focusing on regional initiatives in infrastructure, trade, investment and financial markets that efficiently promote economic integration. As CABEI has an important and particularly active portfolio in Nicaragua, Honduras and Guatemala, its participation could be at a similar level to that of the IADB.[2] Considering that the M/P contemplates the use of external funding sources, it will be the responsibility of each member country, according to their internal regulations, to prioritize the sectoral agency, carry out related procedures in accordance with the funding modality, the interest of the executing agency and implement the management procedure that applies pursuant to their national regulatory framework.

6.3.3 Co-Funding

Co-funding has been one of the funding approaches used by multilateral development banks such as the World Bank, IADB, Asian Development Bank (ADB) and the Japan International Cooperation Agency (JICA) to support transport sector projects that may be too large for any one institution to finance alone.

Co-funding involves the joint provision of financial resources by two or more institutions to support a large-scale project. This funding scheme takes various forms, including loans, grants, equity investments and guarantees. These co-funding partners share risks as well as rewards of the project and collaborate closely throughout the project cycle.

For example, IADB/JICA co-funding has supported several development projects in Latin America and the Caribbean. In 2011, they signed a framework to promote co-funding in renewable energy & energy efficiency, water & sanitation and transport. In March 2021, the IADB Group and JICA signed a new Memorandum of Collaboration (MOC) for Cooperation for Economic Recovery & Social Inclusion (CORE) in Latin America and the Caribbean. This new MOC extends the period of cooperation by five years; it also broadens the scope of disaster-risk management and global health, and further promotes investment in quality infrastructure.

In addition, JICA is expected to support economic growth by strengthening the private sector in cooperation with IADB Invest and IADB Lab, private-sector arms of the IADB Group. Following the development proposals based on strategic corridors in this M/P, Central American countries should find a set of projects for each transport corridor that can be financed through such a co-funding scheme.

As CABEI has implemented co-funding with the Republic of Korea Ministry of Economic Development and the German Development Bank, this mechanism may be important to achieve joint and robust funding of some M/P projects and the strategic corridor strategy in the short, medium and long term.

6.4 Financing with Mixed and Private Funds

M/P implementation presents the challenge of a gap between combined public debt capacity of the region's countries and the capital requirement needed to implement the proposed projects given that this source could only cover 36% of the resources required. For this reason, the search for innovative funding mechanisms that do not depend solely on public funds or public debt is of great importance. Following is a

2 For the case of Costa Rica, see Law No. 9635 on Strengthening of Public Finances, which in Title IV Fiscal Responsibility of the Republic, Art 11, establishes measures for containment of public spending and debt ranges that determine growth of current spending.

series of instruments selected as good practices in funding investments in the transport sector that have already been successfully implemented in Central America and elsewhere.

Each of the instruments described below holds advantages, as well as specific preconditions required for their successful implementation. It is estimated that up to 64% of the investments required in the 11 strategic corridors prioritized by the M/P could be financed by one or more of these mechanisms.

(1) Private Equity Funds

Capital funds specialized in the transport sector, such as bond or equity investors, channel resources from other investors who lack the skills required to analyze the project, especially its profitability and risks, and monitor its development.

(2) Transport Leasing

The transport leasing instrument (rent with purchase option) is a source of funding with tax benefits. In Colombia contracts entered under this modality for a term equal to or greater than 12 years, to develop infrastructure projects in the transport, energy, telecommunications, potable water and basic sanitation sectors, are considered operating leases that become the property of the lessee at the end of the contract. Consequently, the lessee may record the total lease fee incurred as a deductible expense, without having to file any amount for the leased asset as a liability, unless the purchase option is used.[3].

(3) Private Infrastructure Funding

In Japan, the Private Infrastructure Funding Law (PIFL)[4] introduces a method for entrusting the design, construction, maintenance, management and operation of public facilities to the private sector.

Enacted in 1999, the law stipulates procedures and regulations for proper implementation of PFI projects, including basic principles and implementation policies, special measures for the lending of national and public assets, fiscal and financial support, among others.

Its purpose is to improve social infrastructure efficiently and effectively and ensure affordable and quality services to citizens, by adopting measures to promote public facilities through the use of private funding, administrative capacity and technical capabilities; thus contributing to healthy development of the national economy.

The term “public facility” refers to the following facilities (including equipment):

- **Public facilities:** roads, railways, ports & harbors, airports, rivers, parks, stormwater utilities, sewage systems, and industrial water supply.
- **Official facilities:** government buildings and accommodations.
- **Public interest facilities and rental housing:** rental housing, educational & cultural facilities, waste treatment facilities, medical facilities, social welfare facilities, prisons, parking lots and subway shopping centers.
- **Other facilities:** information & communications facilities, geothermal facilities, new energy facilities, recycling facilities, tourism facilities, research facilities and transport equipment such as ships, airplanes, and artificial satellites.

3 Article 89, Leasing in infrastructure projects. Law 223 of December 1995, Colombia.
4 Japan Cabinet Office https://www.cao.go.jp/index-e.html and https://www8.cao.go.jp/pfi/en/projectprofile/pdf/jirei- shu_japan_en.pdf

The PFI Law appoints as Public Facility Administrators the national government (heads of ministries and agencies), local government authorities, independent administrative agencies, special corporations and other public corporations.

In making decisions on allocating such projects, factors such as the appropriate allocation of functions between the national and local governments, efficient use of public funds, improving efficiency of public administration, or efficient use of assets owned by the national and local governments, and whether the revenues generated by the project will be sufficient to pay for the costs involved, are all taken into account. The most common models considered under this law are as follows:

1. **Purchase of services.** A type of funding in which the national or local government pays a service fee as compensation for a public service provided by the PFI operator, which becomes income of the PFI operator. This type of PFI is the most commonly used in Japan, usually applied to construction of public facilities such as government buildings, schools and public housing, where it is difficult to generate revenue from the project. The PFI operator recovers construction costs through service fees paid by the public.

Diagram 1: Type of Service Purchase.



Source: Japan Cabinet Office

2. **Self-sustaining service.** This involves the PFI operator recovering the costs of construction, maintenance and operation from fees collected from users of public services provided by the PFI operator. This is used in constructing assets such as airport passenger terminals, public parking lots, etc.

Diagram 2: Self-sustaining service.

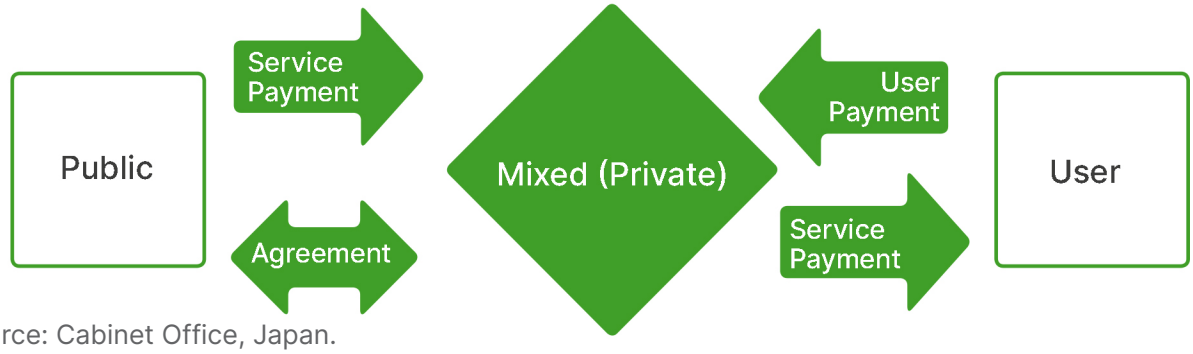


Source: Japan Cabinet Office

3. **Mixed Type.** This is a form of PFI that mixes purchase of services and self-sustaining services, in which the business income of the PFI operator comes from both the service purchase fee paid by the public and fees paid by the users of public services. This applies to facilities such as sports centers and hostel facilities, which are operated by charging user fees.

Compensation for constructing and maintaining the public facility is paid by the public in the form of a service purchase fee and, during the operating period, revenues come from user fees.

Diagram 3: Mixed type.



Source: Cabinet Office, Japan.

Table 34: Methods of private infrastructure funding.

BTO Method (Build, Transfer & Operate)	In the BTO method, a private-sector firm designs & builds infrastructure, transferring ownership to the public sector upon completion; the private firm then takes possession of the asset, maintaining and operating it.
BOT method (Build, Operate & Transfer)	In the BOT method, a private firm builds the facility and retains ownership, operating it to recoup its investment before transferring ownership to the public sector at an agreed point. Since the private operator retains ownership throughout the project period, there is an advantage to having flexible management of the facility.
BOO method (Build, Operate & Own)	Unlike the BTO method, with BOO ownership of the facility is not transferred to the public once the project or contract concludes, but always remains in the hands of the private party.
RO method (Rehabilitate & Operate)	In the RO method, the private company funds and performs renovation of existing facilities and then makes use of them.

Source: Japan Cabinet Office.

In Japan, major airport and port projects have been built via a combination of the methods above.

(4) Road management and maintenance agreements

Road PPP is a long-term relationship between public-sector agencies and private companies that provide road infrastructure services to end users. Private-sector participation is used in the funding stage and various stages throughout the development of public works. Road concessions, which include road management and maintenance agreements, are a particular type of PPP by which the State gets private capital to finance or manage public works and allows the private sector to operate them for the time necessary to recover the investment and/or ensure their maintenance or expansion. The elements that define the characteristics of the bidding process in PPP concessions are the financial conditions, term of execution of the infrastructure, technical specifications, time of operation by the concessionaire and the contributions of the parties.

(5) Recycling of transport infrastructure assets

Asset recycling can be a useful funding strategy for governments to generate revenue and leverage existing assets to finance new infrastructure via the sale or lease of public assets such as ports, airports, railways, roads, bridges, buildings and land (transport infrastructure rights-of-way). This can raise funds for transport infrastructure projects, both new and for infrastructure requiring rehabilitation and improvement.

These strategies may be beneficial for governments facing budgetary constraints or seeking to improve their infrastructure without incurring additional debt. However, the approach could be controversial as there are concerns about the possible adverse effects of selling or leasing public assets, such as the reduction of public control over essential services or the risk of losing revenues in the long term.

For this reason, it is important to emphasize that recycling public assets must be carefully evaluated in terms of their social, environmental and economic impacts, as well as the protection of the public interest. Plus, clear and transparent legal and regulatory frameworks should be established to clarify the rights and obligations of both parties, as well as procedures for conflict resolution and accountability.

In this regard, asset recycling for PPP-based transport projects poses several challenges that require technical assistance. These being:

- Identify and value assets that can be sold and ensure that their sale generates sufficient revenue to finance new infrastructure projects.
- The process of selling assets and contracting new projects requires strong governance and transparency to avoid conflicts of interest and ensure that public funds are used effectively.
- A challenge at the political level due to possible adverse reaction to the sale of public assets important to communities or voters.

(6) Capital Gains Recovery Funding

Capital gains funding is a simple concept when applied funding urban transport projects. The transfer of capital gains can be applied using a deferred increase in property taxes. One common approach, TOD or Transit Oriented Development, allows developers to build higher density (usually taller buildings) around transit stations. This type of funding requires studies on the increase in land value likely to be generated in surrounding areas once a substantive improvement in transport infrastructure is made.

In accordance with this mechanism, local government agencies that oversee urban construction and national transportation agencies jointly invest in developing and redefining a region's infrastructure. The purpose is for any short-term investment promoted by the proposed public investment to be leveraged so that, through the land reappraisal, all investing agencies can receive greater financial returns in future from the property tax differential generated by improving access and/or mobility to/from that plot of land.

(7) Institutional Investor[5]

Within the scope of a concession or PPP, one can invest in bonds for infrastructure funding, or take an equity position directly through a private equity fund. Chile offers a good example of using infrastructure bonds to fund transport projects; however, the issued bonds were externally guaranteed. The two key financiers in Chile were pension funds and life insurance companies through their technical reserves that took securities mainly in infrastructure bonds.

(8) Other alternatives

Currently, there are initiatives that redirect royalties from hydrocarbons, and also funds from the sale of carbon credits for the use of clean energy transport.

It is worth mentioning that although the applicability of the funding described above is not restricted to a specific mode of transport, the key factors that could determine the technical and economic feasibility of any of these modalities are scale, service demand, initial investment amount and payback time.

It is impossible to determine a priori which projects should opt for private or mixed funding. This can only be determined in the pre-investment study for each project. Therefore, this section only suggests some examples of types of projects that could be financed under the modalities described. By way of illustration, following are funding methods considered applicable to different types of projects:

Table 35: Applicable funding methods for projects

Strategic corridors			Public Funding			Private or Mixed Funding								
			National funds	Sovereign debt	Co-funding	Private equity funds	*Transport leasing*	Private or infrastructure funding	Road administration and maintenance agreements	Recycling of infrastructure assets	Capital gain recovery funding	Institutional investors	Other alternatives
		Pacific Corridor											
1	C1	Road Infrastructure & Land Transport Axis	●	●	●			●	●				
2		Port – Maritime Axis			●			●					
3		Aeronautical – Airport Axis	●	●	●	●	●	●					
4		Railway Transport Axis			●			●		●	●		●
5		Coordinated Border Management Axis						●			●		●
6		Urban Logistics Axis	●			●	●			●	●		●

5 J. Serrano Rodríguez. Financing of the Transport Sector within the PMT, IDB Program COL 1090, Support to the National Logistics Plan. Inter-American Development Bank IDB, National Planning Department DNP, Ministry of Transportation, 2010



Strategic corridors			Public Funding			Private or Mixed Funding								
			National funds	Sovereign debt	Co-funding	Private equity funds	*Transport leasing*	Private or infrastructure funding	Road administration and maintenance agreements	Recycling of infrastructure assets	Capital gain recovery funding	Institutional investors	Other alternatives
		Interior Corridor											
1		Road Infrastructure & Land Transport Axis	●	●	●			●	●				
2		Port – Maritime Axis			●	●		●					
3	C2	Aeronautical – Airport Axis	●	●		●	●	●					
4		Railway Transport Axis			●			●		●	●		●
5		Coordinated Border Management Axis						●			●		●
6		Urban Logistics Axis				●	●			●	●		●
		Pan-American Corridor											
1		Road Infrastructure & Land Transport Axis	●	●	●			●	●		●		●
2		Port – Maritime Axis	Not Applicable										
3	C3	Aeronautical – Airport Axis	●	●		●	●	●					
4		Railway Transport Axis			●	●		●		●		●	●
5		Coordinated Border Management Axis						●			●		●
6		Urban Logistics Axis				●	●			●	●		●
		Interoceanic Corridor (Puerto Quetzal - Puerto Cortés)											
1		Road Infrastructure & Land Transport Axis	●		●			●	●				
2		Port – Maritime Axis			●			●					
3	C4	Aeronautical – Airport Axis				●	●	●					
4		Railway Transport Axis			●			●		●	●		
5		Coordinated Border Management Axis	●	●									
6		Urban Logistics Axis					●	●		●	●		
		Interoceanic Corridor (Port of Acajutla - Puerto Cortés)											
1		Road Infrastructure & Land Transport Axis	●		●			●	●			●	
2		Port – Maritime Axis			●	●		●				●	
3	C5	Aeronautical – Airport Axis				●	●	●					
4		Railway Transport Axis			●			●		●	●		
5		Coordinated Border Management Axis		●									
6		Urban Logistics Axis				●	●			●	●		●

Strategic corridors			Public Funding			Private or Mixed Funding								
			National funds	Sovereign debt	Co-funding	Private equity funds	*Transport leasing*	Private or infrastructure funding	Road administration and maintenance agreements	Recycling of infrastructure assets	Capital gain recovery funding	Institutional investors	Other alternatives
		Interoceanic Corridor Honduras (Port of San Lorenzo - Puerto Cortés)											
1	C6	Road Infrastructure & Land Transport Axis			●			●	●				
2		Port – Maritime Axis			●	●		●				●	
3		Aeronautical – Airport Axis			●	●							
4		Railway Transport Axis			●			●		●	●	●	
5		Coordinated Border Management Axis	Not Applicable										
6		Urban Logistics Axis				●	●			●	●		●
		Interoceanic Corridor Port of La Unión - El Amatillo (SV) - Puerto Cortés (HN)											
1	C7	Road Infrastructure & Land Transport Axis	●		●			●	●			●	
2		Port – Maritime Axis			●			●				●	
3		Aeronautical – Airport Axis			●		●	●					
4		Railway Transport Axis			●			●		●			
5		Coordinated Border Management Axis	●	●									
6		Urban Logistics Axis			●	●	●			●	●		●
		Interoceanic Corridor (Port of Acajutla (SV) - Port of Santo Tomás de Castilla (GT))											
1	C8	Road Infrastructure & Land Transport Axis	●		●			●	●			●	
2		Port – Maritime Axis			●			●				●	
3		Aeronautical – Airport Axis	Not Applicable										
4		Railway Transport Axis			●			●		●			
5		Coordinated Border Management Axis	●	●				●			●		
6		Urban Logistics Axis			●	●	●			●	●		●
		Interoceanic Corridor Nicaragua (Port of Corinto - Port of Bluefields)											
1	C9	Road Infrastructure & Land Transport Axis	●		●			●	●			●	
2		Port – Maritime Axis			●			●					
3		Aeronautical – Airport Axis					●	●		●			
4		Railway Transport Axis	Not Applicable										
5		Coordinated Border Management Axis	Not Applicable										
6		Urban Logistics Axis						●		●	●	●	●



Strategic corridors			Public Funding			Private or Mixed Funding								
			National funds	Sovereign debt	Co-funding	Private equity funds	*Transport leasing*	Private or infrastructure funding	Road administration and maintenance agreements	Recycling of infrastructure assets	Capital gain recovery funding	Institutional investors	Other alternatives
	C 10	**Interoceanic Corridor Costa Rica (Port of Caldera - Port of Limón/Moín)**											
1		Road Infrastructure & Land Transport Axis	●		●			●	●			●	●
2		Port – Maritime Axis			●	●		●				●	●
3		Aeronautical – Airport Axis			●	●	●	●					●
4		Railway Transport Axis			●			●		●	●	●	●
5		Coordinated Border Management Axis	Not Applicable										
6		Urban Logistics Axis				●	●	●		●	●		●
	C 11	**Interoceanic Corridor Panama (Port of Colón - Port of Balboa)**											
1		Road Infrastructure & Land Transport Axis	●		●	●		●	●			●	
2		Port – Maritime Axis			●	●	●	●	●	●		●	
3		Aeronautical – Airport Axis				●		●	●				
4		Railway Transport Axis	Not Applicable										
5		Coordinated Border Management Axis	Not Applicable										
6		Urban Logistics Axis						●			●		

Source: JST.



Freight logistics.

6.5 Regional Pre-Investment Fund for Infrastructure Projects

On 10 November 2022, the intersectoral meeting of COMIECO, COMITRAN and COMISCA ministers approved the Regional Economic Reactivation Plan, consisting of three pillars, Mobility & Logistics being one of them. This pillar proposes the creation of a Regional Pre-investment Fund to address this critical phase for developing regional infrastructure projects. The region has appropriate institutions to operate a fund of this type, such as CABEI and IADB. There are precedents for this type of initiative, such as the deep integration process between Guatemala, Honduras and El Salvador through the creation of a structural fund to address infrastructure, equipment and operational needs of integrated border posts.

6.6 Implementation of M/P Funding Mechanisms via PPP

The PPP approach is already applied in Central America, but its scope is still narrow. Scaling up PPP to the level that the M/P demands implies long-term collaboration of government agencies and the private sector to finance, design, build, operate and maintain infrastructure on the 11 corridors and deliver public services.

PPPs in the transport sector can help bridge the funding gap by assisting governments in leveraging private-sector expertise, innovation, funding and risk-sharing between the public and private sectors, depending on which is more efficient in addressing and managing each project risk.

For regional and international private sector agencies, PPPs in the transport sector in Central America provide access to new markets and sources of revenue.

The successful implementation of PPP schemes relies on effectively managing two fundamental elements: risk management and performance. To achieve a successful outcome, it is crucial to establish solid and well-structured contracts that contain appropriate incentives and allow both parties, public and private sector, to obtain mutual benefits. This collaboration benefits society.

Compared to traditional funding models, PPPs represent a more efficient alternative when public resources are properly managed, and risks are transferred to private-sector entities able to achieve better performance in the construction, operation and maintenance of infrastructure. For a M/P infrastructure project to be developed via PPP, some key characteristics must be met, including:

1. **Technical complexity:** the project must have a high level of technical complexity, due to its size, technology or innovation, which will allow the private sector to contribute specialized knowledge and experience in the construction, operation and maintenance of the infrastructure.

2. **Financial viability:** the project must be financially viable and bankable, meaning cash flows generated by the project must be sufficient to cover the costs and generate financial benefits to cover investment costs; all hedges requested for the expected profitability must be attractive to private investors and the public sector..

3. **Risk transfer:** the project must have a transparent allocation of risks between public and private sectors; risks must be transferred to the party best positioned to manage and minimize them.

4. **Social benefits:** the project must have a positive impact on society and the economy which can be measured through social, environmental and economic indicators.

5. **Stable legal and regulatory framework:** the project must have a framework that guarantees legal certainty and protection of the rights of both parties; plus there must be a culture of transparency and accountability in the PPP implementation process.

Each project part of the M/P requires technical, economic and financial feasibility studies to determine whether they can be developed via PPP. These studies could be carried out through technical assistance.

6.6.1 PPP Legal Framework in Central America

The current state of the legal and institutional framework in the region shows that all countries have established specific PPP laws or regulations to attract private investment under this scheme. However, given that legal frameworks were not established in all regional countries until 2010, and the organizations are relatively new, the main challenges at the regional level are both the lack of a successful PPP project portfolio and the harmonization of legal frameworks that facilitate the integration of the model into regional projects.

6.6.2 Feasibility of Implement PPPs

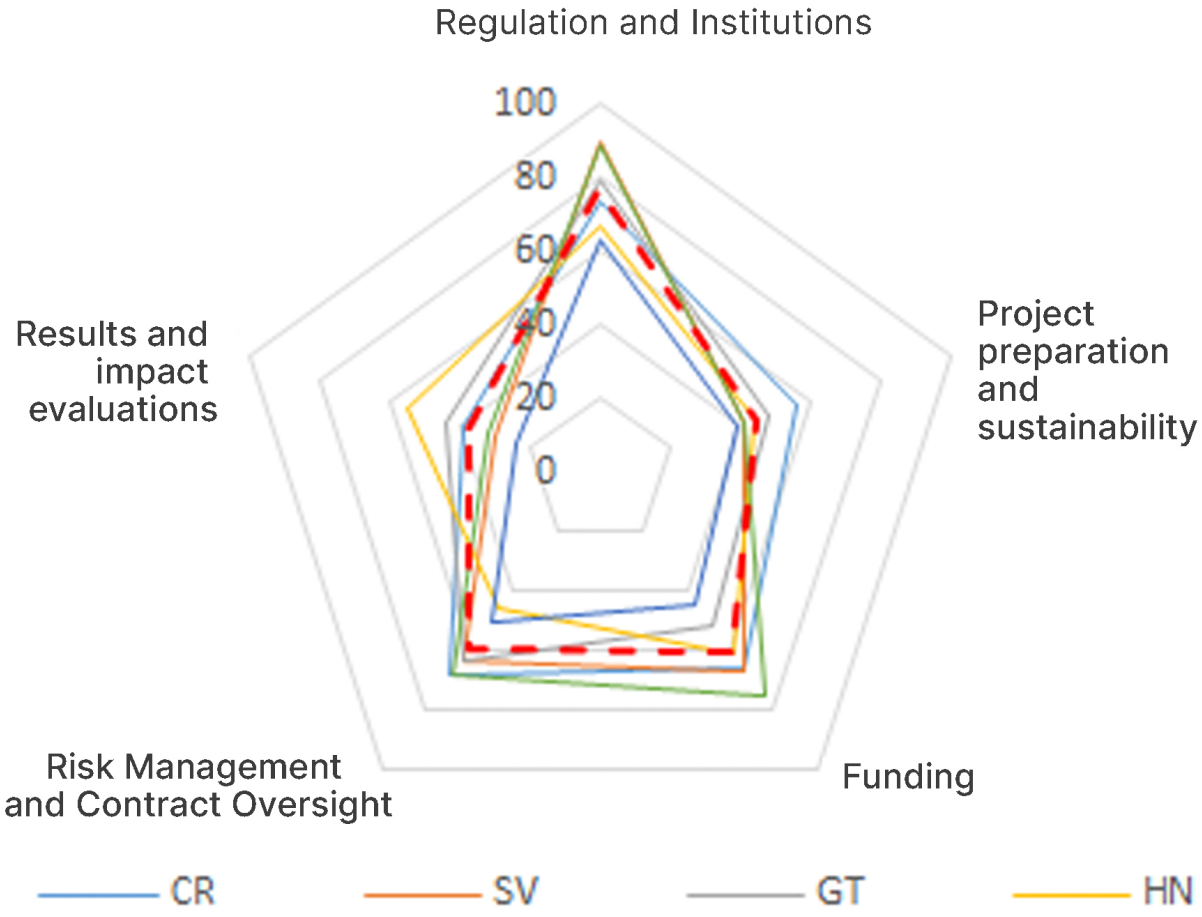
Table 36: Legal Framework for PPPs in Central America.

Country	Regulation	PPP Unit
CR	Law No. 9986: General Law of Public Contracting, Law No. 6227: General Law of Public Administration, Law 7762: General Law of Concession of Public Works with Public Services, Law No. 9701: Law for the Strengthening of Efficient Models of Public-Private Partnerships for the Development of Public Works, Executive Decree No. 39965-H-MP: Regulations for Public-Private Partnership Contracts (PPP Regulations) and Executive Decree No. 43808: Regulations to the General Law of Public Contracting..	CINDE, CNC
SV	Legislative Decree 379 of 2013, Special Law on Public-Private Partnerships (PPP Law) and its regulations, Executive Decree 64 of 2015 (PPP Regulations).	PROESA
GT	Decree No. 16-2010 approving the Law of Alliances for the Development of Economic Infrastructure (PPP Law).).	ANADIE
HN	Decree 143 of 2010 - Law for the Promotion of Public-Private Partnerships (PPP Law); Executive Agreement No. 02073-2010 of 2010 - General Regulations of the Law for the Promotion of Public-Private Partnerships (Regulations of the PPP Law).	Superintendency of Public-Public Partnership. Private, SAPP
NI	Law No. 935 of 2016, Public Private Partnership Law (PPP Law), Executive Decree No. 05-2017 “Regulations for Law No. 935 on Public Private Partnership” (PPP Regulations).	Investment and Export Promotion Agency, SPIE
PA	Public-Private Partnership for Development Regime, Law 93, issued on September 19, 2019 (PPP Regime)..	PROPANAMA

Source: JST.

The Infrascope index is a benchmarking tool measuring the capacity of countries to implement sustainable and efficient PPP projects in the infrastructure sector.

Graph 24: PPP Implementation Capacity Index



Source: Infrascope: Economist Intelligence Unit/ IADB/ European Bank/MCC

This index, which gauges the fitness of Central America's PPP legal framework, shows that specific efforts are required to strengthen institutional capacity in the six countries to prepare sustainable projects, manage funding & risks, supervise contracts and evaluate results. In this regard, the M/P proposes, as a specific action, implementation of a Technical Assistance (TA) program to create favorable conditions for successful PPPs to fund M/P projects.

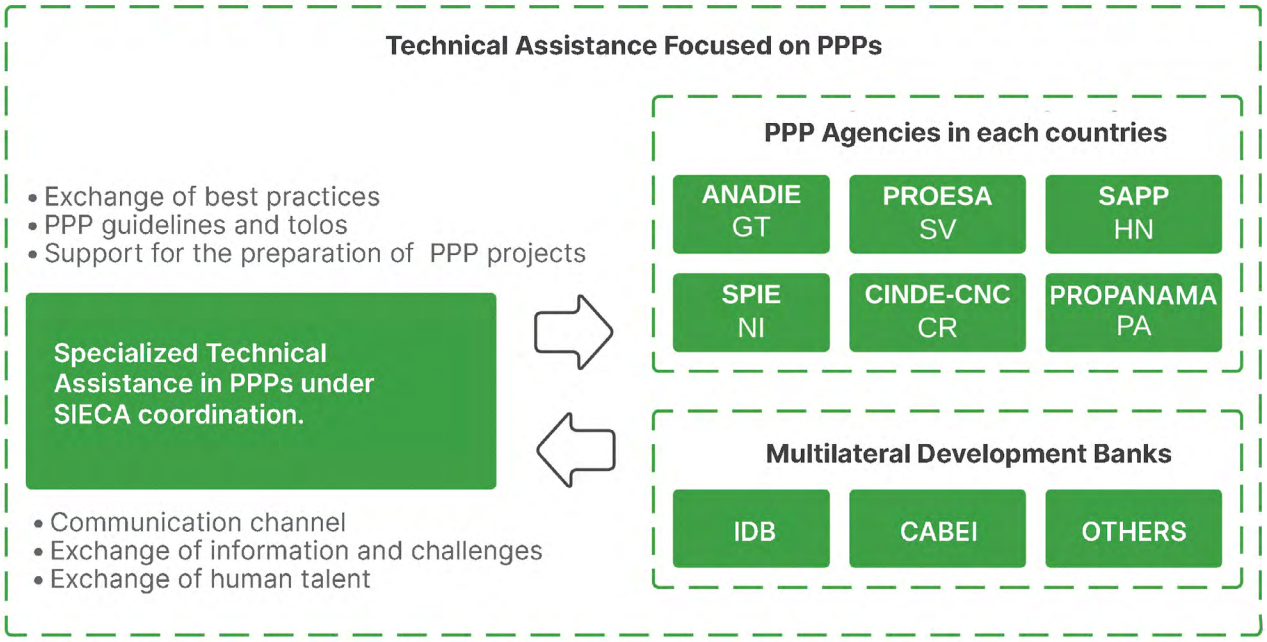
6.6.3 Investment Promotion Agency Network

Based on the EU's experience in promoting cross-border priority projects with financial support, the establishment of a regional promotion strategy for PPP projects is recommended. To achieve it, a "Network of PPP Investment Promotion Agencies" (including representatives of PPP units in each country) should be formed. It should obtain PPP-focused technical assistance under the coordination of SIECA and SE

COSEFIN. Its main objective should be to promote PPP-based infrastructure and services development projects. Necessary studies should be conducted through the coordination of the PPP units, and PPP-based projects prioritized in this M/P should be promoted to potential investors.

The TA should interact with each country's PPP unit, multilateral development banks and private investors, establishing a communication protocol to share information on regional PPP projects.

Diagram 4: Technical Assistance Focused on PPPs



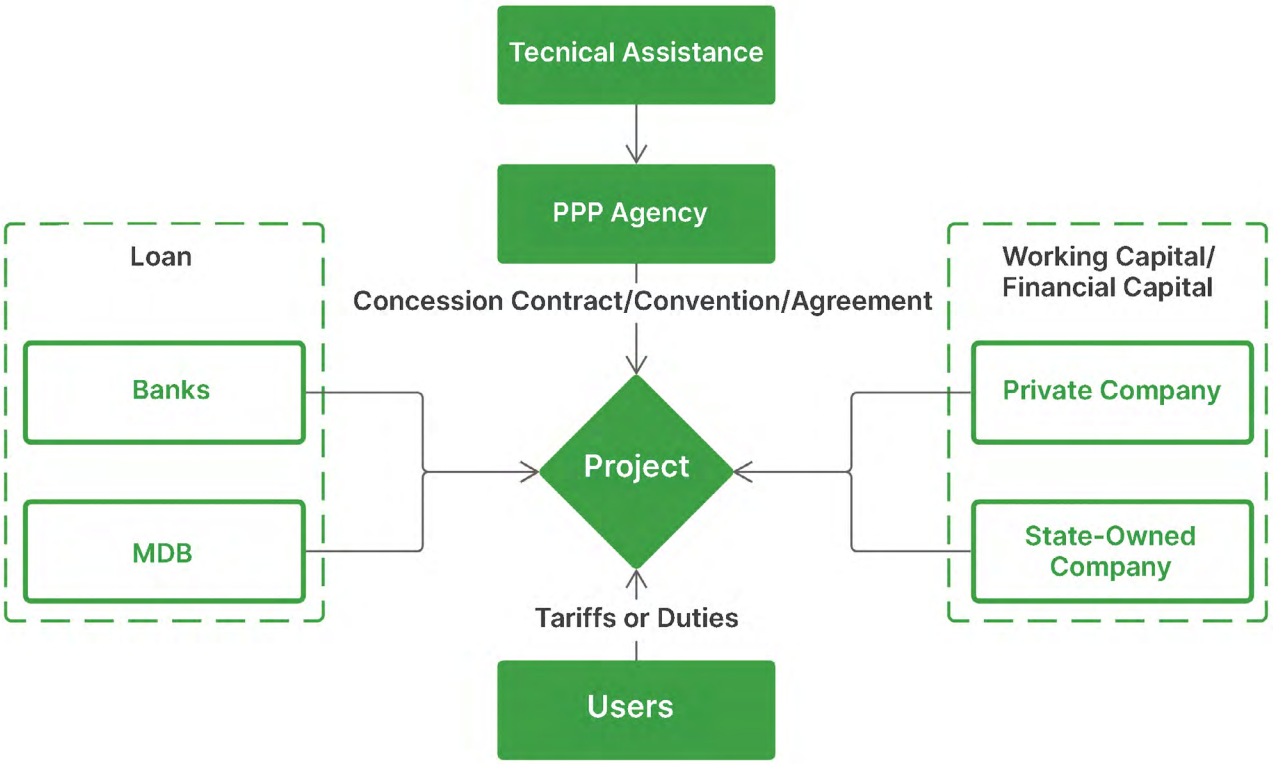
Source: JST.

The proposed technical assistance would have the following objectives:

- Regional network for PPP-based investment promotion should be created with sufficient management capacity. This network should communicate/coordinate closely with regional ministries of finance (COSEFIN).
- PPP technical assistance should be provided for projects at three levels (regional, subregional & national).
- Assist in capacity-building for regional and national PPP units.
- Assist in developing funding plans to formulate, implement and oversee projects.
- Develop and promote a regional investment attraction strategy.

A typical PPP model to be considered as part of the technical assistance is shown below.

Diagram 5: Typical PPP model



Source: JST

To achieve the objectives, technical assistance activities should address the following aspects:

(1) Sharing a Long-Term Vision

Technical assistance will allow key stakeholders to share a long-term vision to promote development of PPP-based transport infrastructure. It will also provide technical training to the respective teams in the feasibility study analysis stage of identified projects.

(2) Harmonization of the Institutional Framework

Standardizing processes and procedures within the institutional framework is essential to encourage cross-border PPP projects. It is proposed to harmonize and simplify the contracting/bidding process to benefit private investors. To this end, technical assistance will support the development of PPP guidelines to promote standardization of the institutional framework.

(3) Identify a portfolio of projects for PPP financing

Analyze the project portfolio prioritized by the M/P to identify potential candidates for PPP funding. These projects should be financially viable and attractive to private investors. Provide technical training to the respective work teams in the feasibility study analysis stage of the projects.

(4) Include multilateral development banks (MDBs)

The public and private sectors will both benefit from establishing effective communication mechanisms between the PPP units in each country and the MDBs. The PPP units will coordinate with the funding authority and the project implementing agency, such as the country's ministry of public works and the MDBs, based on their PPP strategies, which may vary. Technical assistance may also invite potential private and institutional investors to participate.

6.7 Coordination of Financial & Technical Cooperation Efforts

Implementation of the M/P will require coordinated efforts with the main regional cooperating partners to achieve the following objectives:

1. Establish a high-level dialogue with international financial organizations and cooperation agencies.
2. Channel reimbursable and non-reimbursable technical and financial cooperation resources to carry out studies, initiatives and projects contemplated in the M/P.
3. Articulate the efforts of cooperating partners to achieve synergy in the initiatives, programs and projects already in place or to be approved, thus avoiding duplication of efforts and waste of resources.
4. Share information on methodologies, analytical tools, program monitoring & evaluation and regional strategies.
5. Coordinate joint efforts to include the private sector in implementing the M/P.
6. Promote the M/P to key stakeholders and institutional networks.

The Cooperation Table will be convened by SIECA, at the request of the Pro Tempore Presidency, with the participation of at least the following institutions: CABEI, IADB, World Bank, Development Bank of Latin America & the Caribbean (CAF), and cooperation agencies such as JICA, EU, USAID, KOICA and other strategic partners in the region.



Chapter 7

IMPLEMENTATION MECHANISMS FOR THE REGIONAL MASTER PLAN ON MOBILITY AND LOGISTICS 2035

Contents

7.1 Institutional Model for Implementation
7.2 Sectors and Key players
7.3 Organizational agencies for coordinated implementation
7.4 Regional capacity building
7.5 Follow-up and monitoring of the M/P
7.6 Final considerations

Chapter 7. Implementation Mechanisms for the Regional Master Plan on Mobility and Logistics 2035.

This chapter analyzes the complex system of actors that must participate in a coordinated and competent manner to successfully implement the Master Plan strategies and projects, achieving its vision and objectives.

The plan's relevance is grounded in its coherence with the Regional Framework Policy on Mobility & Logistics adopted by COMITRAN and the SICA Presidents. The potential impact that a coordinated regional effort can contribute to fulfilling plan's strategic objectives, aligned with the Sustainable Development Goals, stands to benefit the economy and quality of life of all Central Americans.

The plan's institutional implementation model, its required coordination structures, its monitoring and evaluation mechanisms and the roles of its key actors, make it well-placed for success.

7.1. Institutional Model for Implementation.

In order to ensure the success of the M/P, the most vital instruments for its implementation must be defined.

The complexity involved in implementing regional projects; the cross-cutting and intersectoral nature of the plan; the obstacles inherent in ensuring both adequate funding from various public and private sources; the need for ongoing cooperation among six the nations; the need to harmonize standards and procedures among national legal frameworks; plus, the requirement for sustained political will to effectively coordinate decision-making. All these pose significant challenges for the governments of Central America.

To meet these challenges, a holistic and systemic approach is essential, with clearly defined roles and competencies to support coordinated planning, execution, supervision, management control, monitoring & evaluation of the M/P projects. This requires strengthened institutions that can effectively integrate and coordinate governmental, non-governmental and academic agencies involved in transport to ensure the plan's successful implementation.

Decision-makers must strengthen and empower the agencies implementing the plan to address regional gaps in terms of infrastructure, equipment, regulations, institutional frameworks and funding, and to strengthen institutional competencies, both in the management of regional agencies and the private sector.

That SIECA must play a critical role that in coordination and implementation of the plan is recognized at the regional level. The national ministries of public works and transport and local governments also have key roles to play. In this regard, the institutional framework for the sector at the regional level is stipulated in the Regional Mobility and Logistics Framework Policy and the COMITRAN working structure.

7.2. Sectors and Key Players

7.2.1. Public Sector

In the public sphere, the M/P must be compatible with the Intersectoral Meeting of Ministers, made up of COMIECO, COSEFIN and COMITRAN, which assumes the governing functions of the Regional Mobility and Logistics System, responsible for leading implementation through the following functions:

1. Articulate actions in mobility and logistics related to regulation, construction, modernization of infrastructure and development of regional transport systems, etc., as well as initiatives promoted by other state portfolios about the Framework Policy, so that it considers all facets of policy among the Central American governments.
2. Maintain mobility & logistics issues on the agenda of the SICA Summit of Presidents, ensuring that the strategies, lines of action, programs and projects are sustainable beyond the cycles of government.
3. With SIECA's support, consolidate alliances with international partners, governments cooperation agencies, financial institutions and multilateral organizations to help secure funding for projects identified in the M/P.

This Intersectoral Council is supported by the Intersectoral Logistics Commission (CLI), composed of the directors of Central American Economic Integration (COMIECO), Investment and Public Credit (COSEFIN), Regional Technical Commissioners for Mobility & Logistics (CTRML /COMITRAN) and the Customs Committee. Its primary function will be to coordinate the PMRML and M/P implementation process with their respective national transport agencies.

Diagram 6 illustrates the proposed governance mechanism for M/P implementation. Three levels of intervention are proposed: 1) Coordination decision level, 2) Management and execution level, 3) Monitoring level.

The first level comprises the heads of the region's various portfolios of infrastructure, transport, economy, foreign trade and finance. Through intersectoral dialogue with key actors in the transport and industrial sectors, they will promote coordination to identify joint solutions to Central America's logistical challenges. The Intersectoral Meeting of Ministers will define provisions to allocate necessary public funds, as well as regulatory and legal updates required to improve the costs and travel times of goods and passengers in the region, based on input from the Sectoral Council of Ministers of Transport (COMITRAN) and the Intersectoral Logistics Commission (CLI) of each country.

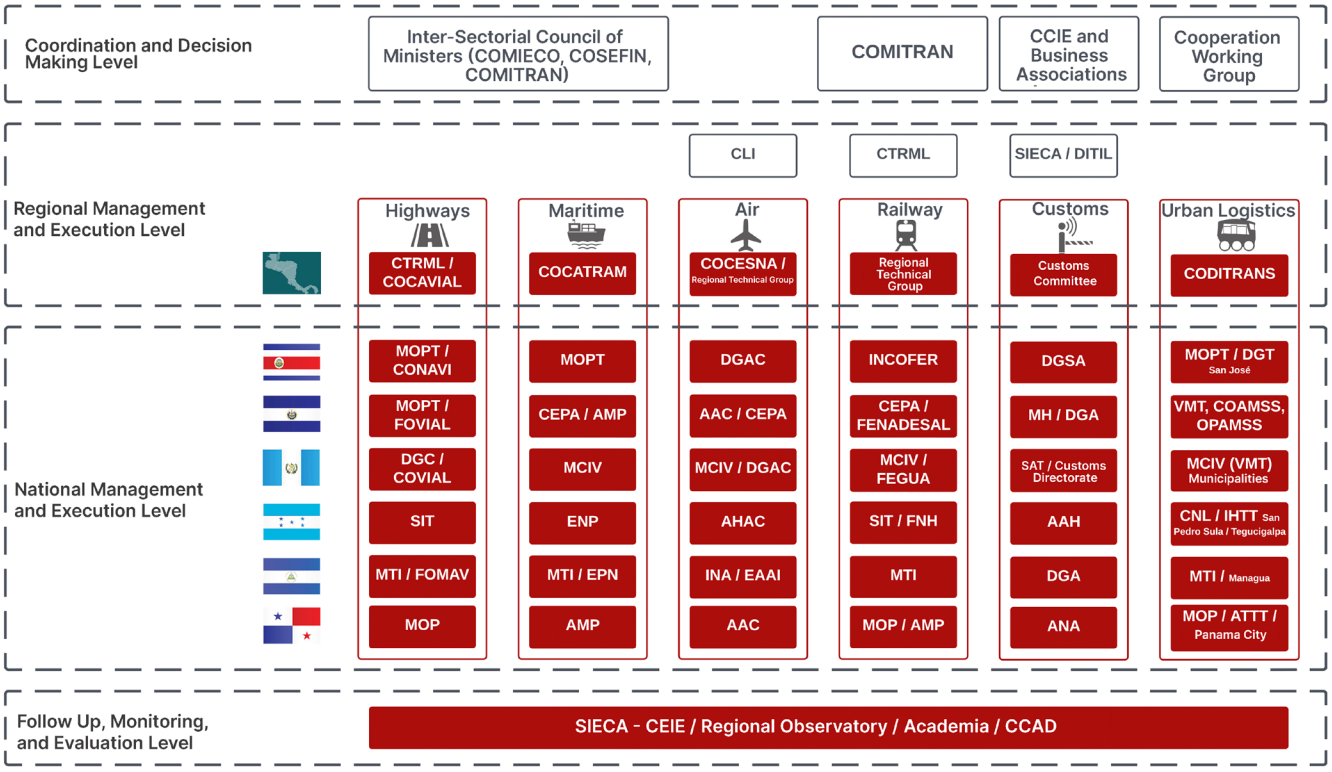
The regional management and execution level will be handled by directors of the CLI, who, together with the Directorate of Transport, Infrastructure & Logistics (DITIL) of the Secretariat for Central American Economic Integration (SIECA), will be responsible for proposing concrete initiatives at the regional and subregional levels. Likewise, the heads of municipal planning institutions, administrators of ports, airports, railways, road maintenance funds and maritime and aviation authorities in each country will be responsible for implementation at the national level, coordinating with the corresponding regional forums.

At the monitoring level, SIECA, via DITIL and the Center for Economic Integration Studies will be involved, as well as research centers, academic institutions and thinktanks in the region. Implementation of the initiatives will be monitored and projects will be evaluated to provide feedback for decision-making and corrective actions.

Finally, it is important to consider the interaction of the regional integration process with international cooperation within the framework of the Mesoamerica Project, which includes Belize, the Dominican Republic, Mexico and Colombia, along with the Central American countries, as part of the Central American Integration System (SICA). The Mesoamerican Agenda for Transport, Mobility and Logistics is another important regional focus to articulate with the PMRML and its M/P. This sector has a portfolio of regional projects whose execution will be articulated with the Central American project portfolio.

At the institutional level, the Forum of Ministers of Transport and the Regional Technical Commission on Transport of the Mesoamerica Project, whose permanent coordination is the responsibility of the Ministry of Public Works and Transport of Costa Rica, and for which the Executive Directorate of the Mesoamerica Project and SIECA serve as joint secretariat, have been established.

Diagram 6: Governance of the coordination mechanism for M/P implementation.



Source: JST/SIECA

Participation of the private sector, regionally organized via the Consultative Committee for Economic Integration (CCIE), at the decision-making level is essential for implementing the M/P. To oversee coordination in the sectoral pillars, COMITRAN will assume functions via existing agencies such as the Regional Technical Commission on Mobility & Logistics (CTRML), COCATRAM, COCESNA and the Customs Committee (which is under COMIECO). At the national level, in addition to the vice ministers of transport and the general directorates of transport, other relevant institutions will also participate, including administrators of ports, airports and railways, metropolitan planning offices and municipalities, etc.

The structure also includes the Regional Commission for Risk Management & Adaptation to Climate Change (CR-GRACC), made up of responsible units in the ministries of public works & transport, which will coordinate actions and projects at the national level in risk management and climate change in road infrastructure.

Regional technical groups will also be involved, updating regional regulations on topics such as Georeferenced Information Systems, railway and road regulations, etc. There will be a need to create a regional technical group, including aviation authorities of the six countries, to coordinate actions in airport infrastructure and civil aviation, in addition to COCESNA, which handles air safety and navigation.

At the M/P monitoring level there is a proposal to create within SIECA, a Regional Observatory of Mobility & Logistics, a new unit of DITIL, which will gather statistical data and monitor project results and progress of the M/P. Academic institutions and thinktanks will also participate in monitoring, which could be organized regionally by SIECA. The Central American Commission on Environment & Development (CCAD) will monitor environmental issues and coordinate its functions with SIECA.

7.2.2. Private Sector, Business and Academe.

Private-sector actors involved in transport and infrastructure will play key roles in implementing the M/P. Business associations, academic institutions, research centers and private organizations will participate as a consultative body supporting the Intersectoral Council of Ministers in implementing priority M/P projects. Main functions include:

- Promote and evaluate strategies, master plans, joint initiatives and strategic projects.
- Coordinate with government and voice corporate concerns.
- Create awareness among institutions.
- Provide ongoing technical advice to government institutions on mobility and logistics issues.
- Stimulate public-private participation in infrastructure development and management projects.
- Participate in training and capacity-building programs plus transport-sector administration.

The CCIE will coordinate participation of the business sector while SIECA will structure a network of academic institutions and research centers to support the consultation processes.

7.2.3. International Cooperation Agencies

Cooperation agencies are expected to participate actively in implementing the M/P by supporting technical and financial aspects of priority projects. To coordinate the participation of cooperation agencies, a Roundtable of Cooperating Partners convened by the Pro Tempore Presidency of COMITRAN and SIECA has been proposed. It will serve as a platform to organize technical and financial support. Ideally, an annual meeting will be held to report on project progress, identifying areas for cooperation and to manage finances.

7.3. Organizational Agencies for Coordinated Implementation

7.3.1 Strategic Corridor Development Committees

Management, coordination, design, cooperation, funding, implementation, monitoring & evaluation of strategic corridor functions will be structured at three levels:

1. CLI will handle overall cross-sectoral monitoring of the corridors and work carried out in them.
2. CTRML will be responsible for monitoring transport infrastructure in the corridors, as far as the ministries of public works and transport are concerned.
3. Ad hoc committees will follow-up on the corridors at the national level, led by the country delegates to the CLI; they may convene other actors at the national level. All actions requiring coordination at the bi-national, subregional or regional level will be brought to the CTRML or CLI, as appropriate. These committees will be led by the ministries of public works and transport, which will designate an official in charge or ministerial commissioner.

SIECA will provide technical assistance, preparing an annual report on the implementation and follow-up of the regional corridors.

For strategic corridors (transverse or inter-oceanic) involving two or more countries, binational or regional follow-up committees will be set up, led by the ministries of public works and transport of each country. In the case of binational corridors, the coordinators of the national committees will meet periodically for the respective follow-up and may request support from SIECA for appropriate follow-up.

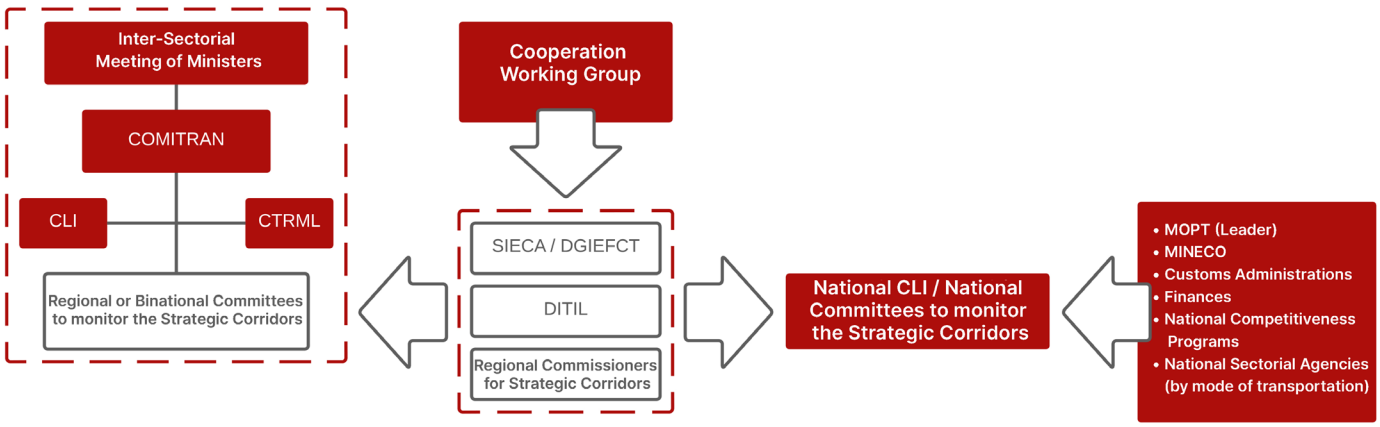
The term "Strategic Corridor" reflects the strategic objective of facilitating mobility of people and goods in the region via road and other transport modes, developing the notion of the corridor as a central axis that includes several projects under an intermodal, integral, intersectoral and multi-scale logic. At the same time, it implies the concepts of graduality and interconnection of regions, countries, logistic nodes and production centers, in which road sections or other modes are integrated in a complementary and articulated manner.

As such, an official appointed by DITIL/SIECA will provide technical support in the formulation, design and management of corridors and promote the following study stages required to strengthen them.

As shown in Diagram 7, governance of strategic corridor projects will be coordinated via structured bi-national or regional committees that will report to CLI and CTRML, which will report to COMITRAN and the Intersectoral Meeting of Ministers. These committees will have the technical and secretarial support of SIECA/DGIEFCT/DITIL, where responsible officials will be assigned to follow-up on the strategic corridors. They also provide support at the national level and draw on inputs provided by the National ILCs or National Strategic Corridors Follow-up Committees, which include stakeholders such as MOPT, MINECO, customs, etc. Some of the functions defined for this unit include:

- Identification of projects in the Strategic Corridor Axis
- Defining the process for incorporating complementary projects
- Project prioritization

Diagram 7: Governance of strategic corridor projects



Source: JST/SIECA

DITIL/SIECA will support the structuring of projects and the Strategic Corridor Program. DITIL will assume the role of Project Management Unit.

7.3.2. Short Sea Shipping Facilitation Committee (SSSC).

The road network is currently used mainly for intra-regional movement of goods, with the consequent costs of construction, operation, rehabilitation and maintenance of road infrastructure. This, together with the high cost and time of moving products through border crossings, are the main factors that raise the costs of logistics in the region and significantly reduce the competitiveness of exports.

To improve logistics performance, Central American governments are seeking to make more effective use of marine transport. This also aims to reduce investment in traffic infrastructure and road maintenance costs, eliminate waiting times at border posts, decongest highways and reduce pollution.

For this reason, one strategic objective of the M/P is "To configure a robust, competitive, safe, resilient and redundant regional intermodal transport system to turn Central America into a world-class logistics platform for the movement of goods and people." This is why coastwise Short Sea Shipping (SSS) routes are being promoted along both Pacific and Atlantic coasts. To this end, SSS facilitation committees should be set up linking relevant pairs of countries in order to implement the concept.

It is recommended that these committees include key relevant institutions including the ministries of public works, transport, economy & foreign trade, agriculture, health and foreign affairs as well as customs and immigration directorates, port authorities, trucking companies, etc.

The main functions of these facilitation committees should include the following:

- Develop work plans that provide strategic guidelines for establishing SSS projects.
- Identify main products traded between pairs of countries, plus major exporters, to determine "anchor cargoes" as potential clients/users of the SSS route.
- Meet with potential SSS service providers to determine the required operating and financial conditions.
- Review and modernize the legal framework (if necessary), and formulate standardized operating manuals defining protocols for berthing, loading/unloading, dispatch, reception and inspections, etc., for ports on each SSS route.
- Define tariff schedules for these types of projects to encourage use of SSS.
- Enable use of port facilities and equipment.
- Position the project among key stakeholders and organizations involved in the initiatives, undertaking actions to facilitate SSS implementation.

7.3.3. Facilitation Committee for the Northern Region.

A subregional agenda for transport and logistics is needed within the framework of the "Deep Integration between Guatemala, Honduras & El Salvador." The Enabling Protocol for free transit of goods and naturalized persons between these countries establishes a legal framework that allows the signatories to gradually form a customs union, consistent with the legal instruments of Central American economic integration.

The proposal is to develop road, port-maritime, air and rail links between the three countries, which account for about 70% of intra-regional trade. This tri-national proposal aims to move forward with concrete projects defined in the M/P in order to accelerate progress achieved within the customs union process, and to boost intraregional trade, competitiveness and economic & social development.

In August 2018, the summit of presidents of El Salvador, Guatemala and Honduras proposed actions including:

1. Ensure road corridors linking the three countries are in good condition and guarantee the trade flow in an agile and safe manner (especially food products and medical supplies) and resilient to disasters.
2. Ensure accessibility and connectivity of border posts.
3. Develop complementary transport modes (maritime, air and rail) as multimodal transport options.
4. Develop subregional infrastructure investment projects in order to create new jobs and boost competitiveness, productive growth and investment attraction.
5. Support pilot projects defined and prioritized in the M/P.

To execute this agenda, a regional technical working group should be formed, including the ministries of public works & transport, which may form specialized working subgroups for each transport mode or by project.

7.4. Regional Capacity Building

7.4.1. Strengthening SIECA

7.4.1.1. Directorate of Transport, Infrastructure and Logistics (DITIL)

Implementing the M/P entails a need to strengthen institutions responsible for project planning, management, execution and follow-up, both at the regional and national levels. Regionally, strengthening is needed at the Central American Economic Integration Secretariat (SIECA) as a technical secretariat supporting COMITRAN, and at the Intersectoral Meeting of Ministers (COMIECO, COMITRAN, COSEFIN). With COMIECO and COMITRAN, the secretariat is held by SIECA, which has the Directorate General of Economic Integration, Trade Facilitation and Transport (DGIEFCT), which in turn runs the Directorate of Transport, Infrastructure and Logistics (DITIL).

Implementation of the M/P includes many important tasks:

a. Continue tasks of: i) technical secretariat, supporting the institutional framework of the process, in the transport agenda, from the Intersectoral Council of Ministers, COMITRAN and the technical councils that derive from it, and regional technical groups; ii) Develop and monitor technical standards and regulations on transport, mobility and logistics; iii) Develop technical studies, projects and consultancies.
b. Manage, monitor and evaluate implementation according to the set schedule.
c. Outline new tasks in implementing the M/P plus review and update, as necessary.

For new tasks required to implement the M/P, at minimum, the following are identified:

1. Monitor, follow-up and evaluate implementation.
    a. Follow-up implementation of regional projects.
    b. Monitor and follow-up the strategy and plan.
    c. Formulate, monitor and record outputs, outcomes and impact indicators of the M/P.
    d. Prepare reports and statements for M/P monitoring and follow-up.
    e. Evaluate M/P results.
    f. Propose corrective measures and action plans.

2. Support implementation of the regional project portfolio:
    a. Lead implementation and coordinate regional technical groups.
        1. Coordinate studies to support strategies and work plans.
        2. Identify regional and subregional project proposals.
        3. Formulate project profiles, pre-investment proposals, pre-feasibility/feasibility studies for regional and subregional projects.

3. Manage funding for regional and subregional studies, analyses, programs and projects.
4. Support implementation of PPP strategies and action plans.
5. Manage regional mobility and logistics observatory.
6. Support for participation in regional training and education programs.
7. Administrative follow-up of regional project implementation.

To achieve all these, it is necessary to strengthen SIECA's capacities, including DITIL and in other units such as administration, IT and research.

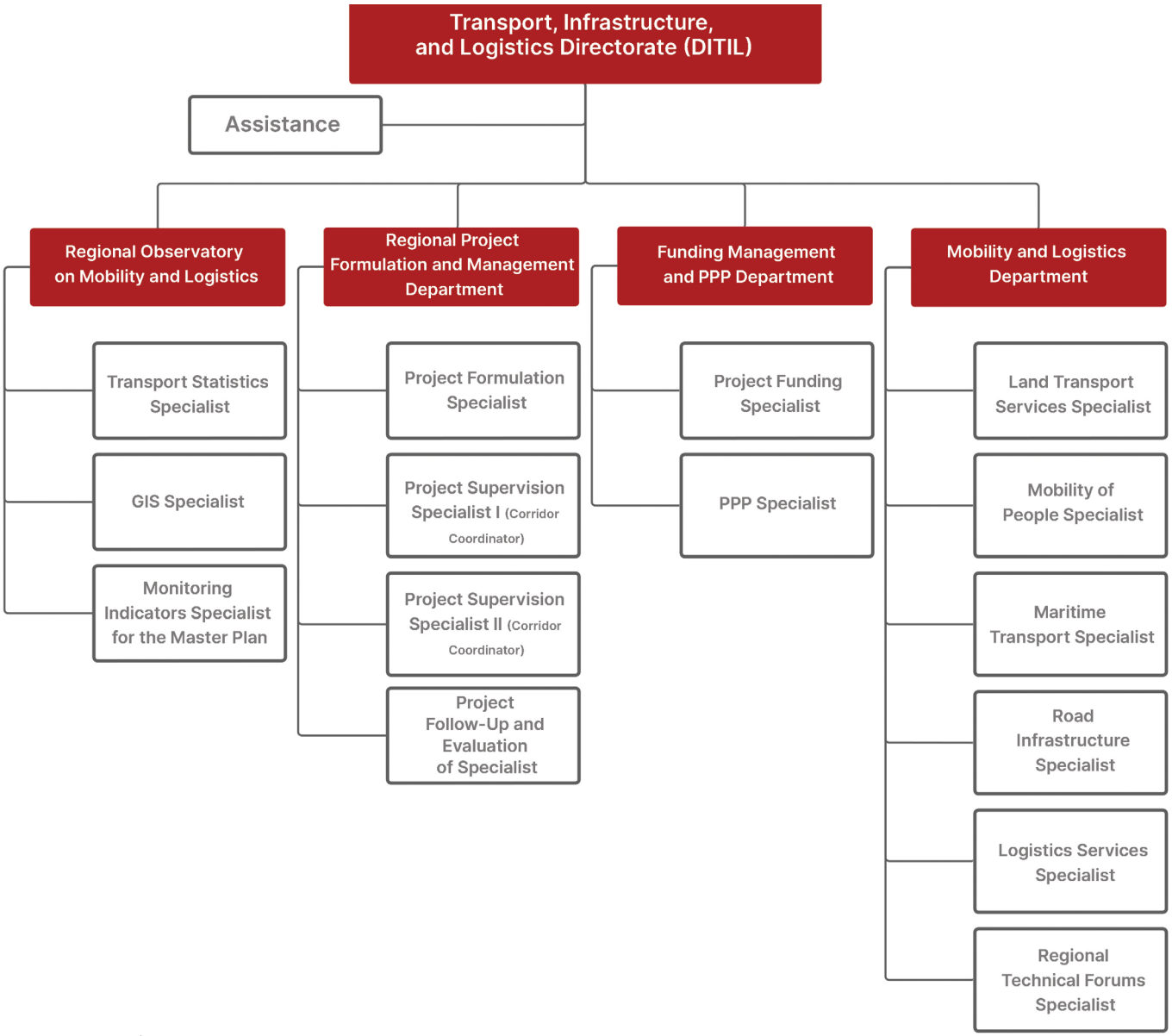
Work areas that require strengthening in DITIL:

1. Management.
2. Technical and support secretariat.
3. Monitoring & evaluation (regional mobility and logistics observatory).
4. Formulation and management of regional projects.
5. Funding and PPP management.
6. Thematic areas (cross-cutting and sectoral axis).

Work areas that require strengthening in SIECA:

1. Project management in the DAF.
2. Technical studies and indicators management, etc., at Center for Economic Integration Studies.
3. Technological tools for the transport, mobility and logistics sectors in the DTIC.
4. International cooperation for project management and finance.

Diagram 8: Proposed organization chart of SIECA's DITIL.



Source: JST/SIECA

Recommendation

An institutional development study should be conducted to determine SIECA's workload for the Framework Policy & Master Plan, including a proposed organizational chart for DITIL and strengthening other SIECA administrative units involved in implementing these regional instruments.

7.4.1.2. Regional Mobility and Logistics Observatory

The objective is to create a specialized unit that provides timely and objective information to decision-makers on the progress of executing the M/P, plus the state of infrastructure, mobility, logistics and transport services in the region.

The aim is to:

a. Create an information system on mobility and logistics as a digital instrument of the Regional Mobility and Logistics System created by the PMRML, under the direction of SIECA, in coordination with member country ministries of the Economic Integration Subsystem, to guarantee the availability of information on mobility and logistics, generated from data provided by public institutions, transport operators and infrastructure managers, etc., as well as other actors in the regional logistics chain.

b. Make information available in a regional tool that provides an integrated vision that supports analysis, facilitates mobility management and improves the design of sustainable/efficient mobility solutions and transparency in designing public policies at the regional and national levels.

c. Have georeferenced maps of roads, ports, airports, railways, border crossings, economic activity zones and strategic regional projects, etc.

d. Follow-up on logistics performance indicators, such as road cargo movement times, infrastructure status, competitiveness indexes and logistics costs, etc.

This Observatory will be a unit of SIECA's DITIL, with the Directorate General for Economic Integration, Trade Facilitation & Transport (DGIEFCT) and SIECA's Center for Economic Integration Studies (CEIE) as co-responsible units. The Regional Mobility and Logistics Information System will be a digital instrument under the direction of COMITRAN in coordination with SIECA. The aim is to guarantee the availability for all governments of information related to mobility, generated from data provided by government authorities (transport ministries, port authorities, airport authorities, rail operators, maritime infrastructure planning offices, maritime funds, maritime revenue offices, regional government offices, etc.), as well as transport operators, importers/exporters and infrastructure builders, etc.

Data will be structured following international best practice. Averages are to be defined at the regional level, indicating development and growth. Data provided by the Observatory will provide an integrated vision that supports analysis, mobility management and design of sustainable/efficient mobility solutions. It will include components on risk management and climate-change adaptation, and support both planning of transport infrastructure projects and implementation of the Master Plan. The system will be structured in a modular fashion and will systematically include information from all areas across the region, both for passengers and goods.

To ensure maximum reliability of information, COMITRAN will establish a technical group in charge of defining policies, definitions, contents, formats, etc. It will also establish a development schedule depending on available resources.

The system will be based on the diagnostics and studies (surveys and traffic flow measurements) developed for the M/P 2035. The implementation of GIS will consider and include information developed by other cooperating partners: White Paper (WB), Pacific Corridor Studies (IADB), RICAM (M/P), Railway Regulation (CABEI), etc., and the implementation of the geographic information system that is currently being organized with support from ECLAC, SE COSEFIN and COSUDE and should be based on the consolidation of national observatories in order to ensure its sustainability.

Recommendations

A project profile is required to manage technical assistance and specialized consultancies:

1. Diseño del sistema de información regional en materia de movilidad y logística de COMITRAN / SIECA / Observatorio Regional que contenga el desarrollo de interfaces para integrar a las plataformas de información de los seis países y otras plataformas regionales.
2. Proyecto de Sistema de Información Georreferenciada, el Módulo de Inversión Pública (MIP) de vialidades y otros productos regionales, así como nuevas capas de información sobre infraestructura de transporte multimodal en CA.
3. Desarrollo de bases de información e indicadores sobre infraestructura terrestre, marítima, aeroportuaria y ferroviaria en los países.
4. Generación de indicadores en materia de movilidad y logística en el marco del P/M.

7.4.2. Central American Institute of Transport

The master planning process has highlighted the need to strengthen Central America's capacities for transport research, analysis, planning, and promotion of technologies for transport infrastructure and services to improve the competitiveness of each country and the region. In response, creation of the Central American Transport Institute (ICAT) is proposed as a decentralized body of SIECA, to provide solutions to the transport and logistics sector in Central America, in order to contribute to its competitiveness, sustainability, and safety, and the welfare of Central Americans, through:

- Analysis and applied research.
- Laboratory and technology services.
- Production of standards, manuals and reference methodologies for the industry.
- Dissemination of results and knowledge acquired.
- Professional training.

Topics to be developed may include:

- Quality of infrastructure and its environmental resilience.
- Operation of transport, mobility and logistics in the region.
- Safety in transport.

- Urban logistics and solutions.
- Integration of various transport means.
- Developing proposals for regulations and methodologies to address sectoral problems.
- Professional training in transport, mobility and logistics.

The proposal is to turn this regional institute into a national and international benchmark in transport and logistics, developing projects jointly with public and private technological innovation centers, considering the global technological environment and recommending technical specifications and standards for transport infrastructure and operation.

Recommendations

Promote a diagnostic, market and development study of the Central American Transportation Institute proposal.

7.4.3. Institutional Strengthening of the Ministries of Public Works and Transport

7.4.3.1. Improving ministerial coordination capacities to implement the Master Plan.

M/P implementation requires enhancing coordination among several institutions such as the ministries of public works and transport. Given that COMITRAN is the political body that assumes leadership in formulating, approving, and implementing the M/P, these ministries are responsible for coordinating actions regarding transport carried out in their respective countries, specifically regulation, construction and modernization of infrastructure and development of regional transport systems.

Plus, under these ministries are agencies directly or indirectly responsible for road infrastructure, port-maritime, aeronautical-airport, rail and road transport, plus urban logistics and public transport. Other issues such as border crossings, coordination with productive and economic issues, and project funding must be coordinated with the ministries of economy or finance and other authorities.

As such, it is necessary to strengthen the capacity of these bodies to coordinate their efforts in implementing, following-up and evaluating the M/P.

Leadership by the ministries on the executive side will require reform processes to strengthen comprehensive planning capabilities, address the needs of intermodal transport and PPP methodology in planning and implementing policies. Improving logistics requires not only building infrastructure but also reforming the human dimension in trade, customs, intermodal transport, traffic information systems and training, etc.

It is also necessary for the ministries of public works and transport to provide leadership to the various business associations and labor unions to support implementation of the M/P.

7.4.3.2. Strengthening Intermodal Planning Units in the Ministries of Public Works and Transport

As part of institutional strengthening in the transport and public works ministries, a strategic objective should be to move from unimodal planning systems to an intermodal planning system for transport, mobility and logistics. The goals of the ministries should make planning an integral and systemic process aligned with regional and national plans, political axes and national/intersectoral objectives. It is necessary to move



from planning focused on single modes (e.g., roads) to a system of intermodal planning at the national and regional levels. These capacities should include tools to address risk management, climate-change adaptation and transit, etc.

To achieve this objective, the ministries should set up intermodal planning units. In order to make regional efforts viable, it is necessary to have national mobility and logistics observatories that provide world-class access to statistical information and graphic tools and maps, etc., tools that are essential to support decision-making.

Recommendation

Conduct diagnostic and proposal studies on regulatory and institutional frameworks that can adapt to the new realities and paradigms posed by intermodality and implementation of the M/P, as well as national plans for cargo logistics and human mobility.

7.4.3.3. Formation and Expansion of National Logistic Cabinets

Given the cross-cutting nature of mobility & logistics, it is becoming evident that government approaches should reflect this reality by creating "national logistics cabinets," as Panama, El Salvador and Honduras have already done. Such cabinets could conceivably include:

1. Ministry of Public Works and Transport
2. Ministry of Economy and Foreign Trade
3. Ministry of Foreign Affairs
4. Ministry of Treasury or Finance
5. General Directorate of Customs
6. Ministry of Government
7. Ministry of Agriculture, Livestock and Food
8. National Competitiveness Program
9. Ministry or agency in charge of science, technology and innovation
10. Ministry or entity responsible for training or education of human resources
11. General Directorate of Civil Aeronautics
12. Port-Maritime authority or governing body
13. National railway company
14. Other government stakeholders

Such a logistics cabinet could include working groups organized by strategy, subsystem or component of relevant national or regional plans, in which the public and private sectors are coordinated. A strategy that gives solidity to this structure is constituting it by ministerial agreement. A further good practice would be to set up a high-level advisory committee and technical secretariat, responsible for management and implementation. This secretariat would be responsible for coordinating and controlling general execution of the plan, managing project funding and coordinating efforts.

Impact of the plans would be followed up at the monitoring level by the technical secretariat. State institutions or institutional units, which already collect relevant statistical information, are integrated into the scheme. In this task, having a national observatory of mobility and logistics can be of great help.

7.5. Monitoring, Follow-up and Evaluation of the M/P

The planning cycle ends with definition of the monitoring, follow-up and evaluation system, which enables measurement of the plan's impact on the regional logistics system, on various subsystems and, ultimately, on the standard of living of Central Americans. However, since this is a new experience for the region, it is important to include two specific considerations in this plan:

a. Coordination, plus the establishment of a working and decision-making structure for follow-up and evaluation of the M/P, with the following objectives:

- Coordinate establishment of a structure for project follow-up, plus evaluate progress of execution.
- Review progress on commitments made by the countries and financing/cooperating agencies to the M/P projects, plus any additional commitments that may arise.
- Promote accountability among those responsible for executing projects.
- Ensure effective coordination/execution of M/P projects developed with international cooperation.
- Validate processes proposed for development of the projects.

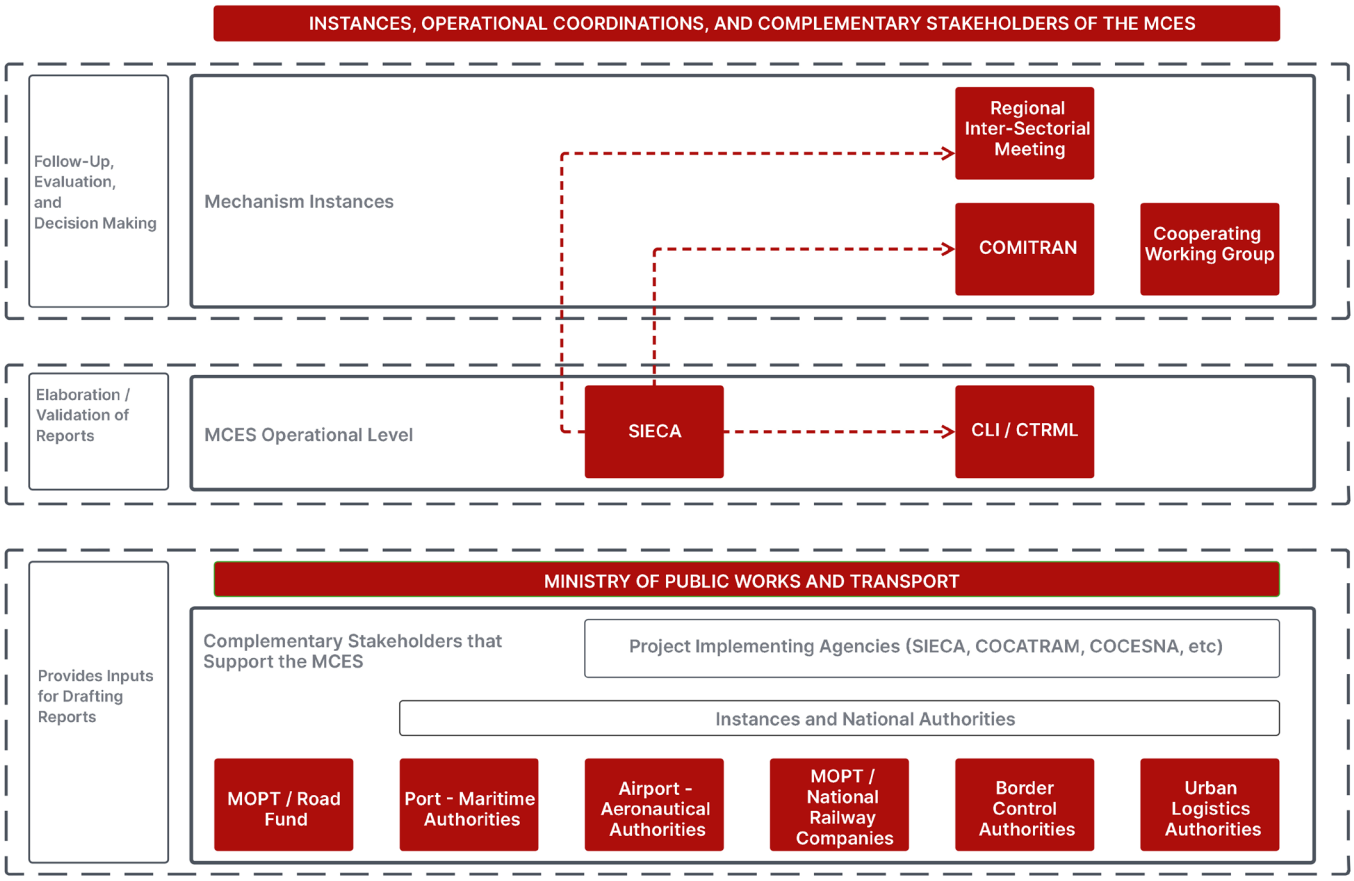
b. The monitoring & evaluation strategy sets the methodologies to be used, how indicators will be structured, and defines processes for reporting information on the indicators of progress in executing the M/P. Given that logistics is a system that serves other sectors, it is considered particularly useful to develop a system of indicators following this approach.

7.5.1. Mechanism for Coordination, Evaluation & Monitoring (MCES)

Diagram 9 below shows institutions responsible for governance at three levels of intervention: 1) Coordination Decision Level, 2) Management & Execution Level and 3) Monitoring Level.

At the Monitoring Level, the following structure is proposed:

Diagram 9: Structure of the M/P coordination, evaluation & follow-up mechanism



Source: JST/SIECA

As information for monitoring and evaluation flows from the lower technical levels to the political levels, reports come from technical authorities (typically in ministries of public works and transport). Reports will be received at the operational level of the Coordination, Evaluation & Monitoring Mechanism (MCES), where the CLI is located, which includes the CTRML and SIECA. In this case, reports are prepared with information provided by the complementary actors that support the MCES. Both the CTRML and the CLI may issue technical analyses and recommendations to be presented to the political level, made up of COMITRAN and the Intersectoral Meeting of Ministers (COMIECO, COMITRAN, COSEFIN), informing the M/P Cooperants Bureau. Technical recommendations are received at this level, and corresponding decisions are taken. Finally, this level prepares and submits general progress reports on the M/P to the Summit of Presidents for consideration.

SIECA intervenes through DITIL and the Center for Economic Integration Studies. At this level of monitoring, research centers, academic institutions and SIECA will organize regional thinktanks to follow-up on the

M/P and evaluate the projects to provide feedback for decision-making and the timely implementation of corrective actions.

The proposal to strengthen SIECA includes structuring the Regional Observatory for Mobility & Logistics as an administrative unit of DITIL, which in addition to its data and statistics generation functions, should follow-up on the M/P monitoring and evaluation indicators. It is also important to mention that the Central American Commission on Environment and Development (CCAD) is responsible for monitoring environmental issues and would support the work done by SIECA.

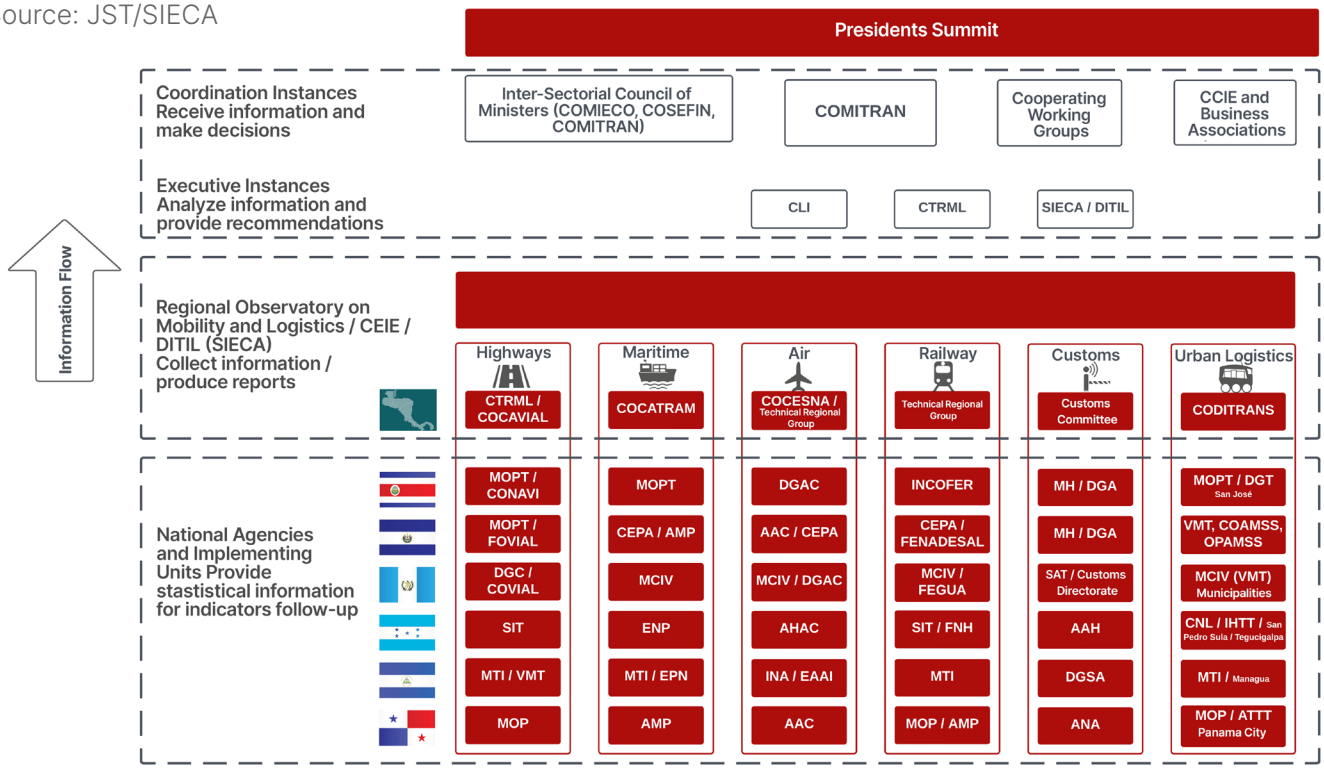
At the national level, primary sources of information are proposed, based on the working or governance structure of the M/P, as shown in Diagram 10.

The proposal is that the ministries of public works and transport, via the CTRML, compile information provided by the technical functions by transport axis according to the formats and dates defined by SIECA through DITIL and the Regional Observatory of Mobility & Logistics. This will be done based on the proposal that the function of compiling data at the national level will be carried out by the relevant ministries or national observatories of mobility & logistics (if established in each country).

If these national observatories are not available, a delegate will be appointed by each ministry of transport under the coordination of the CTRML delegate to support with the following:

1. Participate in defining the strategy and action plan for monitoring and evaluation of the M/P.
2. Participate in defining of the Regional Mobility and Logistics Observatory.
3. Compile and plan for the collection of the information to be agreed upon for the first phase of the collection of the indicators to be agreed upon.
4. Propose and manage support to organize the national mobility and logistics observatory.
5. Participate in defining technical data sheets for indicators and formats for presenting information, etc.

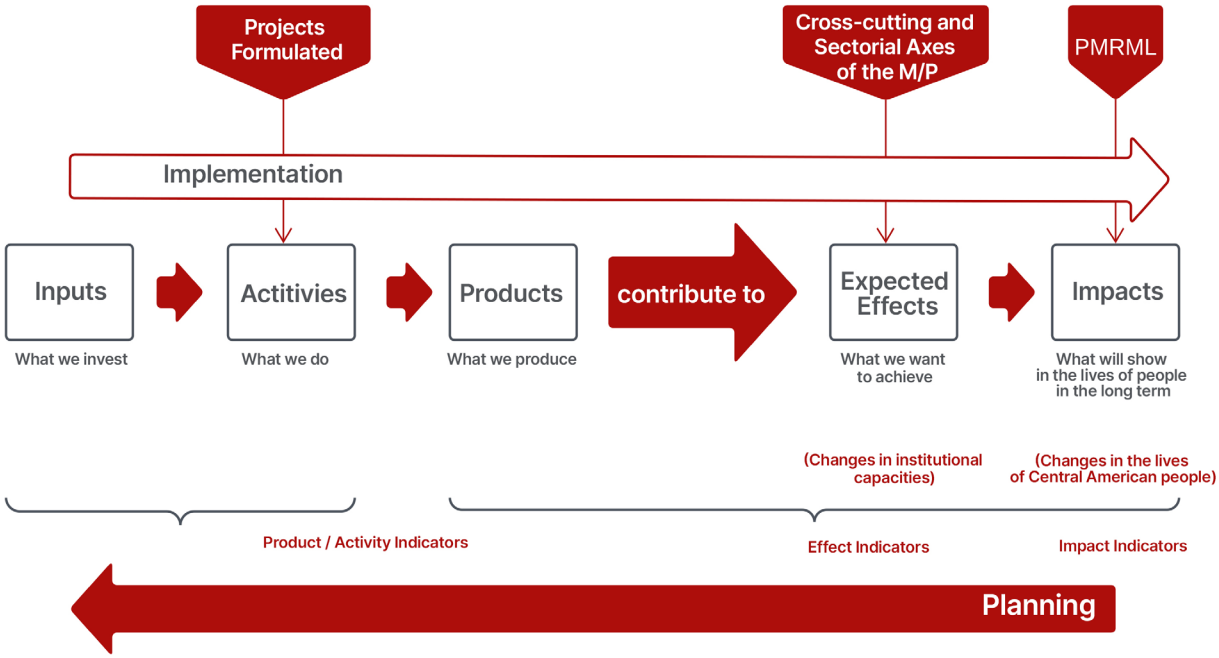
Diagram 10: Detail of the structure of the M/P coordination, evaluation and follow-up mechanism
Source: JST/SIECA



7.5.2. Strategy for Monitoring, Follow-up and Evaluation of the Master Plan

The key concept in monitoring and evaluation, is to measure via "effect" indicators, which are considered changes in institutional capacities or behaviors, and that finally contribute to changes in people's lives in the long term, measured through "impact" indicators, meaning those that seek to contribute to achieving the strategic objectives and vision of the M/P and the PMRL, the guiding instrument on the subject. This is particularly vital in the areas structured in the transport modes and cross-cutting axes.

Diagram 11: Concept of monitoring and evaluation of the M/P.



Source: JST/SIECA

The general objective of the monitoring, follow-up and evaluation strategy is to establish guidelines to gauge the contribution of the M/P via the creation of a competitive, efficient, effective, safe, resilient, and redundant regional mobility and logistics system that integrates various modes of transport, as well as to provide feedback on the relevance, effectiveness, efficiency and sustainability of the actions carried out.

It has the following specific objectives: 1) establish standard guidelines and regulations for information gathering; 2) establish mechanisms and processes for follow-up and evaluation; 3) monitor the project implementation process, its products and its contribution to the outcome and impact indicators of the M/P; 4) compile quantitative and qualitative information on trends in transport, mobility and logistics in the region; 5) systematize lessons learned, best practices and main obstacles; 6) exchange perspectives on the relevance, effectiveness, efficiency and sustainability of the actions.

The monitoring, follow-up and evaluation strategy will be characterized as follows:

- It will ensure monitoring at the levels of 1) indicators, 2) project implementation, 3) financial execution.
- It will be based on an analytical methodology at three levels of intervention. That is, at the levels of: 1) projects, 2) strategies, 3) vision, objectives and guidelines.
- It will define the role of each of the actors involved, as well as the information flows between them.
- It will serve several users: 1) coordination, evaluation and follow-up mechanism, 2) representatives of the Central American countries, 3) members of the cooperation committee, 4) the various institutions of the Central American Integration System, 5) Central American society in general.

Currently, there is no specific unit or budget for monitoring transport and logistics activity in Central America, but one is needed to monitor the M/P's progress. Considering the structure of the ongoing M/P formulation process, SIECA should also be the organization co-responsible for monitoring activity. However, additional experts, budget, and strong support from each country are needed. Plus, some of the indicators proposed below require field study or data processing work. The proposed SIECA unit (Regional Observatory of Mobility & Logistics) should:

- Periodically report progress to the MCES.
- Monitor the contribution of projects to outcome and impact indicators.
- Gather information on main lessons learned, best practices and obstacles to implementation of projects, at the level of strategies and vision, objectives, and strategic guidelines of the M/P.
- Monitor the use of financial resources in implementing the strategy.

MCES will be supported by SIECA and its Regional Mobility & Logistics Observatory, which will measure the effects and impacts:

- Initially, with delegates from regional authorities such as the Center for Economic Integration Studies (CEIE), COCATRAM, COCESNA, regional organizations such as ECLAC and cooperating partners.
- Maintain permanent communication with project executing agencies.
- Executing agencies should generate periodic reports on project progress, as well as on the contribution of activities to achieving project-level output indicators, highlighting lessons learned, best practices and major obstacles to progress in project activities.
- SIECA will support international cooperation efforts to establish National Logistics Observatories. Honduras has a national observatory in the SIT, which could serve as a model for other countries.

7.5.3. Proposed Indicators for Monitoring and Evaluation of the Master Plan

Baseline information and ongoing indicators are key tools for measuring the impact of the M/P. To achieve the M/P objectives efficiently, continuous monitoring and evaluation work is needed. The following table shows the proposed monitoring indicators to confirm progress according to M/P guidelines. It should be noted that some indicators were collected while formulating the M/P. But these need to be updated and reviewed periodically.

Selection of indicators should take into consideration the following:

1. Construct both objective and subjective indicators (registration, perception) that can support analyses to explain trends.
2. Limitations in selecting indicators could include methodology, cost, systematicity and differences between countries which sometimes defy comparison.
3. Harmonization and complementarity with existing initiatives should be encouraged: World Bank, IADB Logistics Observatory, ECLAC and COCATRAM, etc.
4. Balance between indicators that are manageable with enough installed capacity to cover key results.
5. Clearly distinguish between impact and effect indicators (manifestation-affecting/comprehensive vs. institutional performance, behavior, risk factors and social conditions/components subject to action).
6. Generate indicators of economic integration and social/environmental impact of the M/P, especially those related to SDGs.

This proposal is a reference. Final indicators should be defined by an intersectoral technical group, which could include representatives from thinktanks or international organizations such as ECLAC, IADB, COCATRAM, etc.

The chosen monitoring system is based on three subsets of indicators:

- **Impact indicators:** are related to the vision and strategic objectives of the M/P.
- **Performance indicators:** this system is based on indicators measuring their evolution in each cross-cutting or sectoral axis, considering their results as **“effect” indicators**.
- **Operational indicators:** each Strategic Line of Action defines a series of indicators to monitor critical aspects of its performance, considered **“product” indicators**.

Proposed indicators are listed below as an example.

7.5.3.1. Impact or Strategic Level Indicators:

Indicators must be relevant, convenient, definitive and collectable with available data. They must be congruent and aligned with general objectives of the PMRML and M/P. Regarding logistical performance, there are international indicators that define them, such as:

- Trade Facilitation Index (ETI)
- Logistics Performance Index (LPI)
- Global Competitiveness Index (GCI)
- Doing Business (DB)
- Maritime Competitiveness Index
- Availability/quality of communication & transport infrastructure
- Connectivity and access to markets
- Infrastructure
- Customs processes
- Trade facilitation
- Logistics and transport services
- Railway infrastructure quality
- Infrastructure with capacity to meet cargo volumes
- Container yard capacity and container dock loading & unloading equipment
- Customs processes and trade facilitation
- Export times (with & without physical inspection)
- Percentage of units inspected
- Ground transport times
- Logistics and transport services
- Quality and availability of transport services
- Export and import costs

To the extent possible, it is important for the region's competitiveness that international indicators be monitored, even if not all of them are directly related to M/P actions. Furthermore, the table below presents the proposed list of impact indicators at the strategic level.

Table 37: Proposed Strategic Level Impact Indicators.

Vision, strategic objectives	Proposed indicators
1. Vision	• Percent of investments in construction, repair or expansion of transport, mobility and logistics projects compared to national budgets on an annual basis • Population served by state road network • Average speed on road network • Average cost of travel • Average travel times on Central American highway network
2. Strategic objectives	• Transport share of GDP • Total population • Surface area • GDP • Import of transport services • Export of transport services • Exports - value • Exports volume • Imports - value • Imports - volume • Investment attraction
3. Productive and trade cross-cutting axis	• Quality of trade infrastructure (Logistics Performance Index) • Total cargo transported, by country and transport mode (value and %)
4. Human mobility cross-cutting axis	• Total number of passengers transported, national and regional level • Passengers transported by mode (number, %)
5. SDG-SEA Indicators	• EAE-1 ODS 8: Production area to main logistics center (km). • EAE-2 ODS 9: Cargo volume by mode of transport (t-km). • SEA-1 SDG 8: Production area to main logistics center (km) • SEA-2 SDG 9: Cargo volume by mode of transport (t-km) • SEA-3 SDG 11: Main corridor population coverage and transport network (people) • SEA-4 SDG 2: Alternative routes in case of disasters (no.) • SEA-5 SDG 3: Accidents (no.) • SEA-6 SDG 14,15: Impact on sensitive areas (ha) • SEA-7 SDG 13: GHG emissions (CO2/year)

Fuente: JST.

7.5.3.2. Master Plan Performance Indicators or Impact Indicators

Having a system of indicators for monitoring and controlling results can be most useful if the indicators are consistent with commonly used international logistics indicators. For this purpose, international indicators proposed by SIECA, the six countries, the Regional Observatory on Mobility and Logistics, or both may be used as a reference.

Structuring of the indicators, strategies, objectives and projects defined in the thematic axes and economic integration corridors are taken as a framework. The measurement approaches of the proposed system of indicators are based, in general, on the valuation of variables such as:

- Existence of public or private initiatives in the corresponding area
- Action plans in each of the areas analyzed
- Degree of comprehensiveness of plans affecting each of the strategic lines
- Specific projects to advance in the strategic line considered and degree of comprehensiveness
- Progress in implementing strategic plans and projects
- Levels of articulation of strategies in each line, including specific institutional framework

Indicators will be defined according to the following components:

Table 38: Proposed M/P performance indicators

Strategies, components	Indicators
1. Strategic corridor level	• Time indicators (average speed) • Cost indicators (cargo value per km traveled) • Number of projects identified by transport mode • Number of projects with funding • Number of projects ongoing • Number of projects implemented • Investments estimated • Investments made
2. Level of complementary actions and projects	These will be established according to projects to be included in the M/P; however, a sample may consider: • Number of proposed indicators • Number of courses given • Number of trained people



3. Sectoral axes level

Strategies, components	Indicators
1. Road Infrastructure and Land Transport Axis	• Road Infrastructure Quality Index (World Economic Forum) • Total road network • CA road network • Sub-standard road conditions on rural CA roads • Rehabilitation, maintenance and expansion projects • Number of bridges • Highways (kms) • Primary network (kms) • Secondary network (kms) • Other networks (kms) • Paved network (kms) • Number of cargo vehicles • Fleet average age • Total vehicles • Number of cargo transport companies • Companies with 1 or 2 vehicles • Vehicles per operator • Direct employment • Diesel consumption • Gasoline consumption • Number/percentage of electric vehicles • Estimated C02 emissions • Productive commodities transported • Total commodities transported • Average distance traveled • Traffic cargo vehicle • Distance traveled per vehicle • Empty trips • Average cellar occupancy • Average cargo rate • Indicators related to level of fleet renewal

Strategies, components	Indicators
2. Port – Maritime Axis	• Port Infrastructure Quality Index (World Economic Forum) • Ports with international service • Number of cruise terminals • Cruise ships received annually • Number of cruise passengers • Number of container ports and capacity • Number of bulk ports and capacity • Other ports and capacity • Short Sea Shipping - SSS • Maritime cargo transport - international • Maritime cargo transport - productivity • Container port movement • Transported commodities in maritime cabotage • Average cargo rate - maritime cabotage • Maritime connectivity indicators • Data on loading and unloading flows at main ports • Vessel rotation times • Indicators for each port operation subsystem
3. Aeronautical – Airport Axis	• Airport Infrastructure Quality Index (World Economic Forum) • International airports • Airfields • International cargo airports • Air cargo - domestic • Air cargo - international • Air cargo - productivity • Air connectivity indicators • Commodities storage capacity indicators

4. Railway Axis	• Railway Infrastructure Quality Index (World Economic Forum) • Total railway network (kms) • Railway network in use (kms) • Number of locomotives • Rolling stock numbers • Average age of rolling stock • Direct employment • Fuels consumed • Electrical energy consumed • Estimated CO2 emissions • Productive commodities transported (domestic) • Commodities transported (domestic) • Number of passengers transported • Average cargo rate • Average passenger fare
5. Coordinated Border Management Axis	• Border Infrastructure Quality Index (World Economic Forum) • Quality and efficiency of customs clearance • Number of border posts • Tons of cargo through border crossings • Passengers per border post • Indicators of waiting and review line times
6. Urban Logistics Axis	• Urban Logistics Infrastructure Quality Index (World Economic Forum) • Surface area of logistics centers • Total cooling installations • Public use freezer installation • Logistical costs • LPI Ranking
7. Composite Indicators	• GDP / Capita • Trade balance / GDP • Transport / GDP • Vehicles / capita • Road density (kms/km2)

Source: JST / SIECA

7.5.3.3. Operational or "Product" Indicators

The transport system's operational monitoring indicators, or "product" indicators, are established based on the guidelines and projects set in the M/P. Final indicators will be set by the Regional Observatory, but the following is provided as an example:

Table 39: Proposed M/P monitoring indicators or outputs

Guidelines	Indicators
1. Ensuring consistency between regional plan and national plans	1. Number of revised/approved national transport & logistics master plans based on the regional M/P. 2. Number of projects implemented of those listed in the M/P.
2. Monitoring and evaluation system	3. Number of countries with an M/P monitoring platform. 4. Number of monitoring indicators collected. 5. Number of projects reviewed based on monitoring activity
3. Enhanced infrastructure for transport, mobility & logistics	6. Number of alternate routes available in case of disasters. 7. Number of contingency plans adopted in terminals, ports, airports. 8. Number of projects with climate-change mitigation, protection or adaptation measures included.
4. Reduce cost and time of logistics and mobility	9. Average price of cargo transport between CA capitals. 10. Average release time at border crossing points. 11. Average travel time for trucks to pass thru major cities. 12. Average container commodities rate.
5. Improve infrastructure, facilitate availability/quality	13. Portion of roads in good condition in 11 corridors. 14. Length of main roads. 15. Number of airports/ports for international cargo transport. 16. Number of storage and truck terminals along 11 corridors.
6. Reduce adverse effects on environment and society	17. Number of transport infrastructures located in "development suitability" zone in the SEA. 18. Estimated volume of CO2 emissions from transport sector (CO2/year). 19. Protection measures in sensitive areas (Ha) in influence areas of projects.

Directrices	Indicadores
7. Achieving sustainable modal integration	20. Number of intermodal terminals. 21. Main corridor coverage of population & public transport network. 22. Number of modes used from origin to destination for cargo and people.
8. Improving logistics via digital transformation & advanced technology	23. Number of projects that meet this guideline.
9. Reducing uncertainty in logistics	24. Number of vehicles with real-time movement coverage (GPS, RFID). 25. Number of accidents by mode of transport.
10. Sustainable integration with economic activities	26. Number of SEZs along the 11 corridors. 27. Volume of strategic products transported in 11 corridors. 28. Cargo volume by mode of transport.
11. Creating integrated/ coherent regulatory, financial & institutional framework	29. Number of integrated/consistent regulations, standards, manuals & laws on transport & logistics sector in region.
12. Coordination with sectoral policy and plan	30. Number of sectoral policies reviewed/approved based on regional M/P.
13. Human resources and regional institutions related to logistics sector	31. Number of public-sector staff w/ training related to M/P. 32. Number of private-sector staff w/ training related to M/P.

Source: JST / SIECA

Note again that the indicators listed in this document are indicative only. At a later stage it must be determined whether these are relevant, measurable and representative of the region's realities. The immediate task is to generate statistically valid indicators and begin gradual implementation of a system that collects, compiles and analyzes results and trends, in order to generate an accurate picture of the regional logistics system and its components.

Several indicators are already measured and reported by various national or international institutions. However, their final proof will depend on the MCES, which will establish methodologies for their validation. It is suggested to use only official sources to generate information that will feed the statistics to be processed by the MCES / Regional Mobility & Logistics Observatory. However, for perception indicators, at the regional level it is considered possible to conduct opinion surveys from time to time.

7. 5.4. Monitoring and Evaluation Plan

Once the indicators have been defined, elements such as the following should be decided:

1. Prioritize and schedule times for measurement of selected indicators.
2. Prepare technical data sheets for each indicator.
3. In order to generate "apples vs. apples" comparisons, fact sheets should identify the information's source, time, formats and other technical information. These details must be approved by MCES.
4. The baseline and goals that must be met within the specified timeframe for each indicator should be specified. In the M/P, the short term has been set at two years (2025), medium term at seven years (2030) and long term at 12 years (2035).
5. Set timelines for submitting data and statistical information for monitoring and evaluation.
6. For the evaluation, the following must be defined:

    a. Objectives, methodology and evaluation criteria.
    b. Project guideline document.
    c. Proposal of indicators and collection of information.
    d. Processes and methodologies for analysis, prospecting, recommendations, etc.

Additionally, the formats and content of reports to be produced by the MCES must be defined.

1. Project progress reports, prepared by the executing units, which may be semi-annual.
2. Annual presentations of M/P progress reports (including output/impact indicators) will be made. COMITRAN, the Intersectoral Meeting of Ministers, the Summit of Presidents and Roundtable of Cooperating Partners will all receive these.
3. Evaluation reports on outcomes and effects of the M/P every two to three years, which should also be submitted to COMITRAN, the Intersectoral Meeting of Ministers, the Summit of Presidents, Roundtable of Cooperating Partners and Central American society in general.

To implement the Monitoring & Evaluation Plan and support the MCES, it is important to adopt actions such as:

- Include training and capacity-building on conducting evaluation processes.
- Manage funding to support actions involved in strategy implementation and support MCES operations.
- Publication of reports.
- Hold public events to present reports and introduce achievements.

7.5.5. Use of Technology in Master Plan Monitoring

a) Traffic Control Tool

In addition to GPS data, using RFID there is potential to collect travel time and volume data at Central American land borders. Currently, there are some interference problems with these detectors at the borders. But it is possible to use the RFID system in various fields, such as monitoring vehicles in land border areas for security and analyzing the flow of goods for integrated industrial development and logistics plans.

b) Introduction of RFID System in Central America

At the June 2014 Central American heads of state meeting, the region's countries agreed on a proposal to standardize border procedures, facilitate trade and increase the speed of intra- and extra-regional trade movements in order to enhance the region's competitive capacity.

In response to this presidential mandate, COMIECO, SIECA, IADB and USAID formed an inter-functional team to create a work plan which included a strategy that envisioned five short-term trade facilitation measures, including "Measure 4: Registration of means of transport through RFID radiofrequency devices."

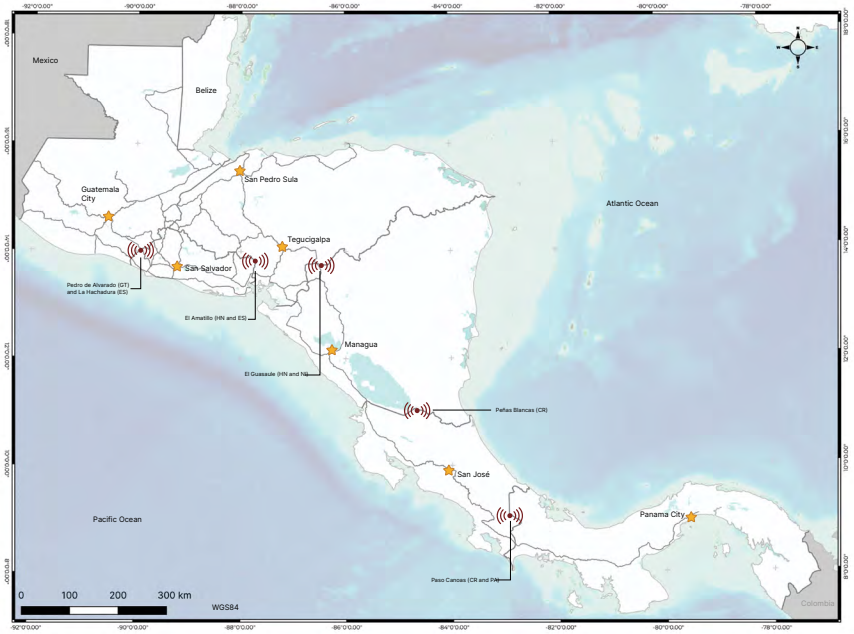
According to a September 2016 COMIECO resolution the five short-term priority actions were to be implemented more quickly. Plus, SIECA was charged with overseeing cooperation initiatives that could aid the nations in implementing them.

From 2016 to 2020, USAID and IADB provided cooperation including technical assistance and donations, supply of equipment, transport tags, RFID system applications, training of officials and dissemination to actors in the logistics chain. Radio-frequency reading equipment has been installed on the continental borders of the Central American region (see Figure 9).

In April 2020, El Salvador, Honduras and Guatemala agreed that as of October 1, 2020, the use of radio frequency tags (RFID) or its equivalent would be mandatory for trucks registered in the three countries passing through border points and clearing customs. However, as of October 1, 2020, a new provision was issued that extended the RFID deadline to January 1, 2021.

Map 21: RFID reading points in Central America





Legend

- RFID Reading System
- Central American Highway CA
- Capital City
- Border
- Body of Water

Source: JST / SIECA

Finally, it is important to highlight the hard work that the customs services of the member states have done from 2019 to date to register trucks (linking RFID tags and their plate numbers). According to SIECA figures, by May 2020, about 17,000 trucks had been registered. As for the current use and operation of RFID equipment, it consists of reading trucks' RFID tags as they cross the border. The full potential of RFID technology therefore remains to be realized. RFID can improve control and reduce time at border crossings, as it incorporates aspects such as process automation and the reduction of steps or stages in the customs process.

Table 40: RFID tag coverage.

Country	No. of trucks in SIECA database*	Total no. of labels delivered**	No. of trucks with RFID tags by May 2020
CR	21,484	24,100	-
SV	11,684	12,800	-
GT	12,172	12,800	-
HN	7,372	7,600	-
NI	12,537	13,600	-
PA	4,481	4,700	-
Total	**69,730**	**75,600**	**17,200**

* Updated database of carriers and customs services in Central America as of December 2019.
**Including labels donated by USAID, IADB, EU/IADB (INTEC).


Cartago
incofer
200-3172
Conector de operación en múltiple

Costa Rica.



Final considerations

for the implementation process of the Regional Master Plan of Mobility and Logistics 2035.

Guatemala - Panama

Final Considerations for the Implementation Process of the Regional Master Plan on Mobility and Logistics 2035, Central America

As mentioned in the introduction, this document is first and foremost a practical, clear and strategic guide intended to articulate actions at the regional, subregional and national levels in a consistent and coordinated manner. Therefore, it should serve as a bridge between the identification of challenges and the strategic actions required to resolve them in order to achieve its objectives. Thus, to promote its implementation, the following initial actions are proposed:

1. To widely disseminate the M/P to relevant organizations and stakeholders, the following actions are recommended:

- Organize a " Master Plan Official Launching Event".
- Prepare a strategic communication plan including dissemination through a variety of channels and tools, such as social networks, press releases, websites, specialized magazines and e-mail campaigns, among others, to reach a wide audience, including the production of promotional material (videos, brochures, etc.).
- Publish the Master Plan on the websites of SIECA, SG-SICA, Ministries of Economy, Transport, Finance, etc. of the countries.
- Create a dedicated website or online portal to provide access to M/P content, including reports, studies and project descriptions, and to facilitate communication and collaboration among stakeholders.
- Organize workshops, in-person and online seminars to present the main objectives, strategies, projects and the M/P implementation design to stakeholders.
- Disseminate the M/P contents in the six countries of the region to the public and private sectors (through workshops, seminars, videos, publications and others), to international organizations (CABEI, IDB, World Bank, and other financial organizations), as well as to cooperation agencies (JICA, European Union, AECID, USAID, GIZ, AMEXCID, ECLAC, UNEP, WTO, UNCTAD and others).
- Present the private sector and potential investors with the opportunities for investing in the M/P and the potential benefits of investing in infrastructure projects identified in this M/P.

2. Ensure that SIECA and the countries, via the Ministries of Public Works and Transport, have the necessary organization, personnel and budget to implement the Master Plan, the following actions are suggested:

- Develop a detailed implementation plan outlining the necessary steps, timelines and resources required for SIECA to strengthen DITIL and other parts of its organization, and provide it with the staff and budget to implement the M/P.
- Report to the Councils of Ministers (COMITRAN, COMIECO and COSEFIN) on a regular basis on the status of the M/P and its progress.
- Carry out a comprehensive needs assessment for SIECA and the Ministries of Public Works and

Transport to identify the resources needed to implement the M/P, including the operating budget to cover costs, as well as tools (hardware, software), travel expenses, equipment, hiring and training of personnel.

- Strengthen the Ministries of Public Works and Transport for the implementation and follow-up of the M/P.
- Secure the necessary resources allocation to SIECA through the appropriate channels, such as government budgets, international cooperation and private sector funding.
- Monitor progress and provide support to SIECA during the entire implementation process to ensure that necessary actions are taken and that resources are used efficiently and transparently.
- Set up an accountability system to monitor progress and ensure that SIECA meets its commitments by delivering timely and effective results.

3. Establish the Master Plan's Cooperation Table.

- Organize a series of presentations of the Master Plan to extra-regional cooperating countries: Mexico, United States, Canada, Colombia, Brazil, Chile, Japan, Korea, China, Qatar, United Kingdom, Spain, among others.

4. Formulate and execute a short, medium and long-term Master Plan implementation program:

- Establish a short-term (2025), medium-term (2030) and long-term (2035) implementation plan for the actions, programs and projects of the M/P with the CLI and the CTRML.
- Suggest and put into action the plan for follow-up, monitoring and evaluation of the execution of the M/P.
- Formulate and implement a regional strategy for attracting investment, with the support of national agencies, and organize presentations abroad with the support of the Ministries of Foreign Affairs and Embassies of Central American countries abroad.
- Identify projects that can be executed through PPPs and promote private investment.

5. Identify priority corridors and sections (parts of the corridors), and establish the recommended execution structure for their implementation. In order to identify the priority corridors and sections and establish specific implementation units in SIECA and the countries, the following specific actions can be taken:

- Establish clear criteria for selecting priority corridors and sections based on their potential impact on economic growth, job generation and regional integration (see Chapter 7).
- Conduct a comprehensive analysis of the transport network in Central American countries to identify priority corridors and sections according to traffic volume, economic relevance and social impact (see Chapter 4).
- Request collaboration from stakeholders, including government agencies and private sector organizations, to collect input, comments and proposals on priority corridors and sections.
- After identifying the priority corridors and sections, establish specific implementation units for

each corridor within SIECA, as well as in the countries, to oversee the planning and execution of infrastructure projects within each corridor (see Chapter 4).

- Allocate the necessary resources, such as personnel, funding and equipment, to each implementation unit to enable effective project management and timely delivery of results.
- Develop a corridor monitoring and evaluation system to track progress and ensure that specific executing units are meeting their objectives.

6. In order to identify viable projects that can be executed through Public-Private Partnerships (PPP) and attract private investment, the following concrete actions are suggested:

- Create a specialized unit within SIECA to oversee the identification, preparation and execution of PPP projects, as well as to provide guidance and support to government agencies and private sector investors during the entire PPP process.
- Set up a regional network of investment promotion agencies and government agencies for the promotion of PPPs, with the support of the banking sector and international cooperation.
- Conduct a comprehensive analysis of infrastructure needs in the six countries covered by the M/P, to identify potential PPP projects, based on criteria such as economic and financial viability (potential revenue streams) and social impact.
- Engage in dialogue with private sector investors and financial institutions to understand their investment priorities and risk appetite for different types of infrastructure projects.
- Establish a transparent and streamlined process for project identification, evaluation and selection, including the development of standard project profiles and templates.
- Develop a portfolio of potential PPP projects, that includes a description of the project, scope, expected benefits, and estimated costs and revenues.
- Work with government agencies to identify and address any regulatory and legal barriers to investment via PPPs, and establish clear and consistent policies for PPP contracting, financing and risk identification.
- Support feasibility studies, risk assessments and application of mitigation measures for each potential PPP project, establishing the most suitable project structure, as well as a financing model.
- Develop a monitoring and evaluation system to track PPP project performance over time and identify areas for improvement and best practices to apply in future projects.

7. Specific actions can be taken to report periodically to COMITRAN on the progress of the M/P implementation, including the following:

- Establish the Regional Mobility and Logistics Observatory as the entity responsible for monitoring the Master Plan implementation.
- Execute the project to build a regional information system for mobility and logistics.
- Support the proposal and implementation of National Observatories on Mobility and Logistics.
- Establish a reporting framework that defines key indicators, milestones and targets to measure progress of the M/P implementation.
- Develop a reporting schedule that defines the frequency and format in which reports must be

submitted to COMITRAN, COMIECO and COSEFIN, considering the required level of detail and the data availability.

- Assign the responsibility for preparing status reports to a designated team within SIECA, ensuring that the necessary resources and expertise are available to collect and analyze data, as well as to prepare clear and concise executive reports.
- Develop a communication strategy to ensure that progress reports are widely shared with relevant stakeholders, including government agencies and private sector investors, as well as international organizations integrating the Cooperation Table.
- Provide detailed information on the status of priority corridors and projects, including updated information on project timelines, costs, and funding agreements.
- Use the status reports as a platform to capture stakeholder feedback and identify areas where additional support or resources may be needed to overcome challenges and expedite progress.
- Put in place a mechanism for follow-up and monitoring of progress reports, including regular meetings with COMITRAN and other stakeholders to discuss progress, identify opportunities for improvement, and develop action plans to address issues or challenges.

8. To measure the impact of the M/P and to widely disseminate its results, the following concrete steps can be taken:

- Establish a comprehensive Monitoring and Evaluation (M&E) framework for the M/P, including a set of indicators and targets relevant to the M/P's objectives (see Chapter 7). Develop a baseline.
- Develop a data collection and analysis plan that describes the sources of information and methods used to measure the impacts of the M/P.
- Assign responsibility for M&E activities to a specific team within SIECA (Regional Mobility and Logistics Observatory) ensuring that they have the necessary resources and expertise to carry out M&E activities in an effective manner.
- Conduct baseline studies to set a reference point to measure progress against the M/P objectives and identify gaps or challenges to be addressed.
- Conduct periodic evaluations to measure the impact of the M/P on key development outcomes, such as economic growth, employment, poverty reduction and environmental sustainability.
- Produce clear and concise impact assessment reports that present the findings of monitoring and evaluation activities in a user-friendly format for a wide range of stakeholders to understand.
- Use impact assessment reports as a platform for sharing information about the M/P with relevant stakeholders, including government agencies, private sector investors and the general public.
- Develop a communication strategy that ensures wide dissemination of the impact assessment reports through various channels, such as social networks, traditional media and outreach activities targeting key stakeholders.
- Use impact assessment results to inform decision-making on future investments and policy reforms, and to identify areas where additional resources or interventions may be required to achieve M/P objectives.



Cargo logistics.



Appendix

Export/Import Value in 2019 (Thousand USD)

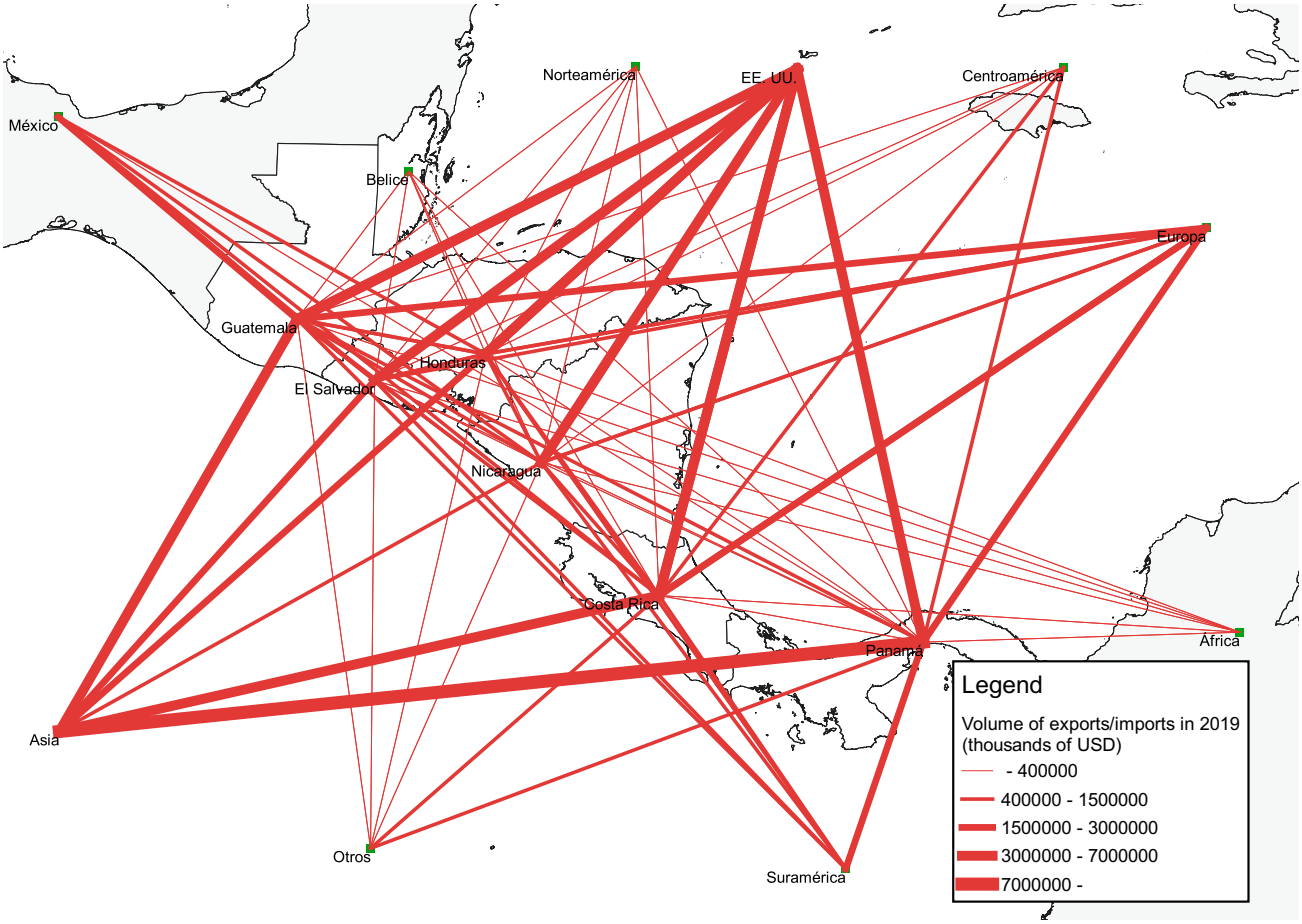


Table of Export Strategic Commodities in 2019 (Thousand USD)

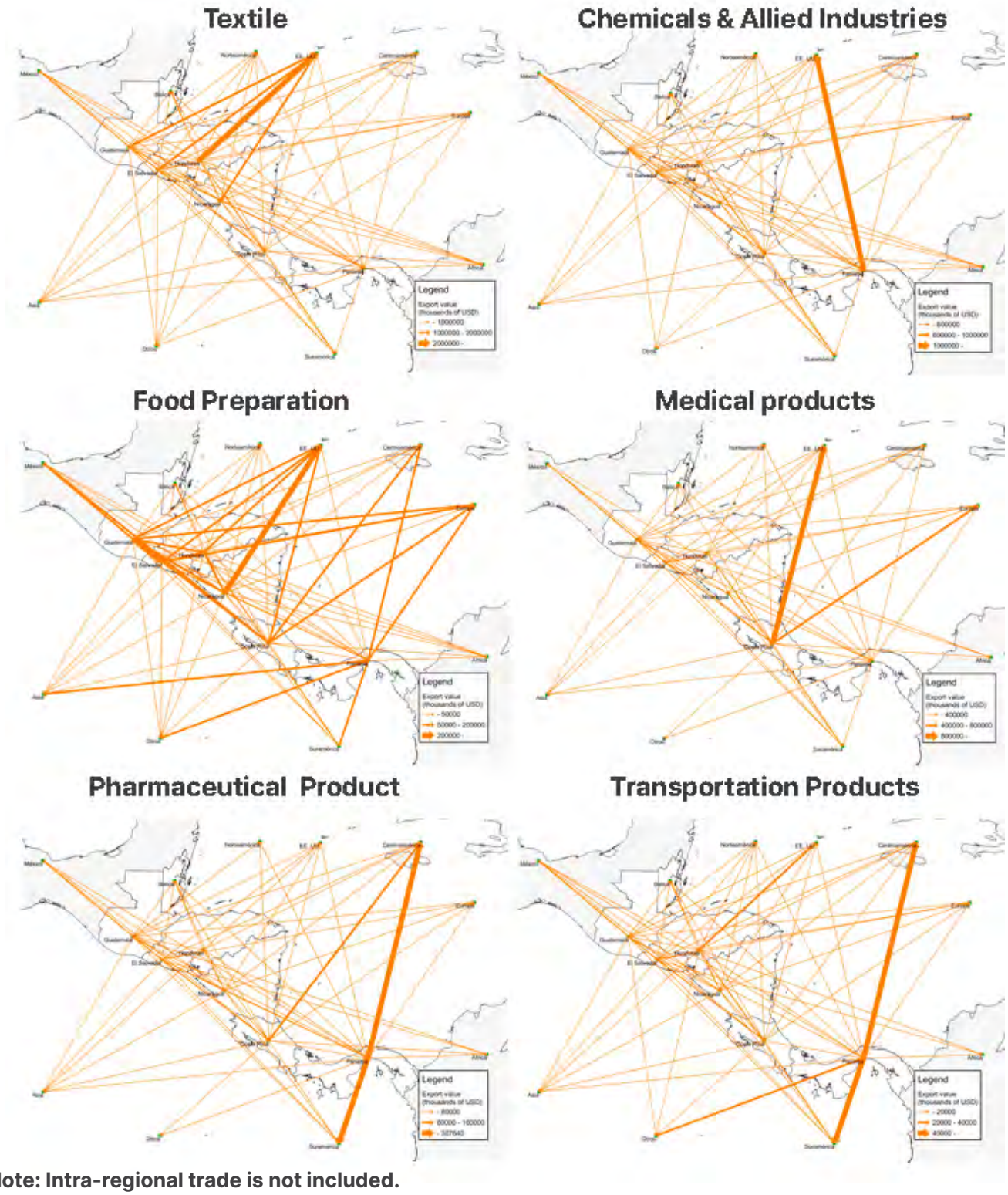
The strategic export commodities for each country were identified as key competitive strengths in the industrial framework. The following six items were examined in identifying the strategic export commodities.

1. Trade and industrial policy
2. Investment and export promotion agencies
3. International organizations
4. Export trends in the past 10 years
5. Economic integration
6. Selection by the Study Team

Strategic Export Commodities in Central America

Rank	Strategic export commodities	GT	SV	HB	NI	CR	PA	NO.	Transport Method
1	Textile	x	x	x	x			4	General
2	Electrical equipment	x		x	x			3	High quality
2	Pharmaceutical products			x		x	x	3	High quality
2	Food preparations and beverage	x	x			x		3	General
3	Chemical products		x	x				2	General
3	Vehicle parts and aeronautical services		x	x				2	High quality
3	Precision and medical products		x	x		x		2	High quality
3	Meat and dairy products		x			x		2	Refrigerated
3	Tropical fruits (mango, pineapple, avocado, etc.)				x	x	x	2	Refrigerated
3	Fish and crustaceans, etc.		x			x	x	2	Refrigerated
4	Wood products	x					x	1	General
4	Nontraditional vegetables (peas, broccoli, etc.)	x						1	Referrer
4	Sugars and sugar confectionery		x					1	General
4	Tobacco				x			1	General
4	Precious stones and metals (gold)				x			1	General
4	Iron and plastics					x		1	General
4	Flowers						x	1	Referrer
4	Nonmetallic mineral products						x	1	General

Export Value of Strategic Commodities in 2019 (Thousand USD)



Note: Intra-regional trade is not included.

Sources: The figures are based on aggregation of UN COMTRADE, SEC, and data from the Central Bank of Honduras and INEC.

Value of exports of strategic products in 2019 (thousands of USD)

Machinery Electrical Precision



Meat



Pineapple



Vegetable Product



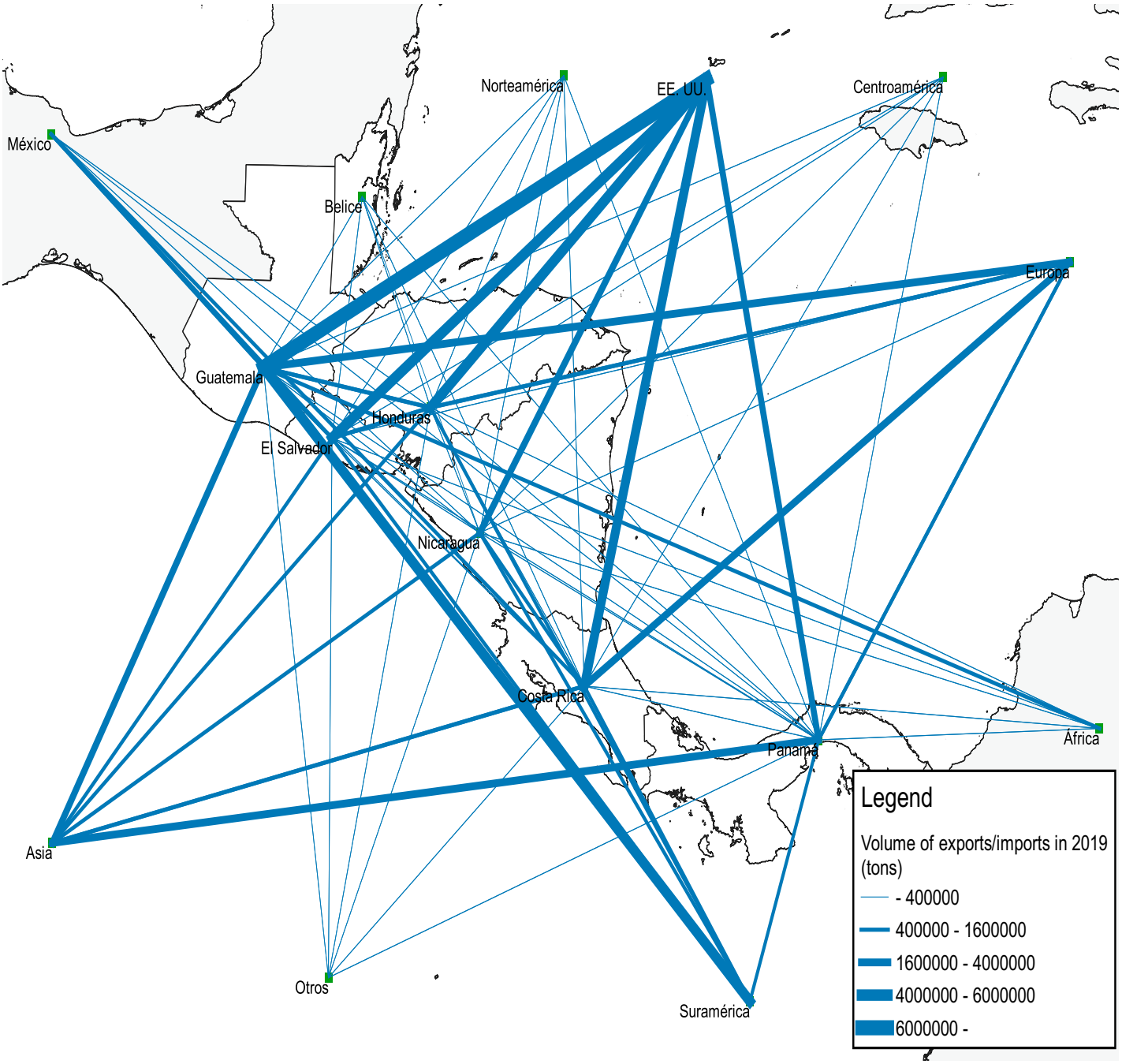
Fish & Aquatic Invertebrates



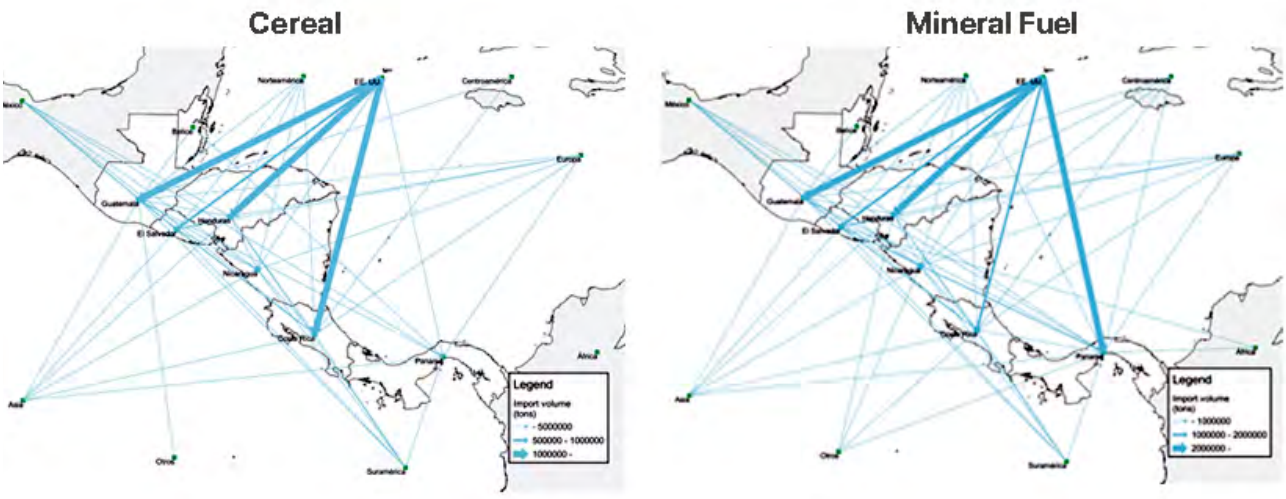
Note: Intra-regional trade is not included.

Sources: The figures are based on aggregation of UN COMTRADE, SEC, and data from the Central Bank of Honduras and INEC.

Export/Import Volume in 2019 (ton)



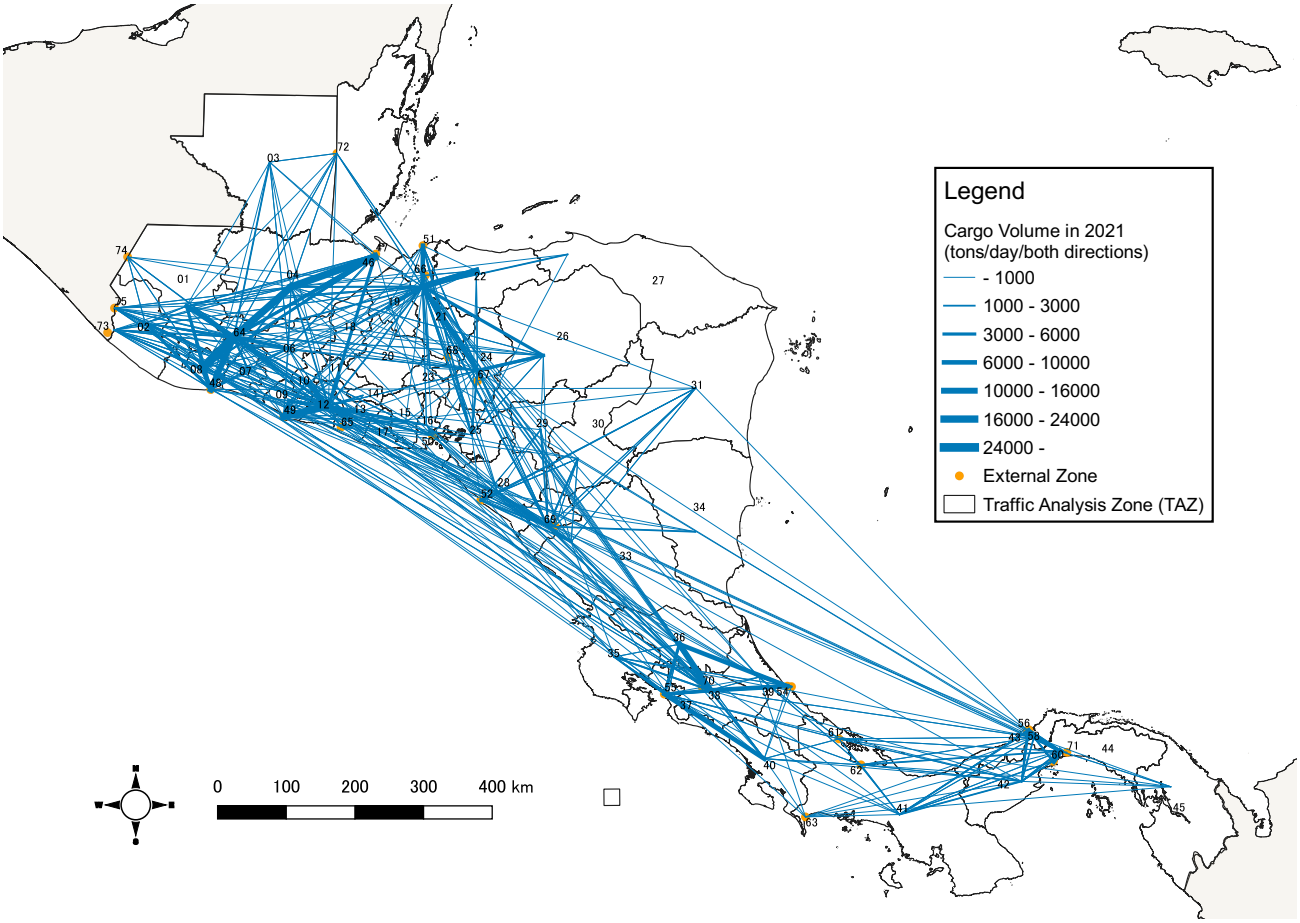
Relevant import products in Central America -cereals and fuels in 2019 (tons)



Sources: Figures are from aggregate data from UN COMTRADE, SEC and data from the Central Bank of Honduras and INEC.

Note: Intraregional trade is not included.

Daily Cargo Flow per volume in 2021 (tons/day)



List of Traffic Analysis Zones (TAZ)

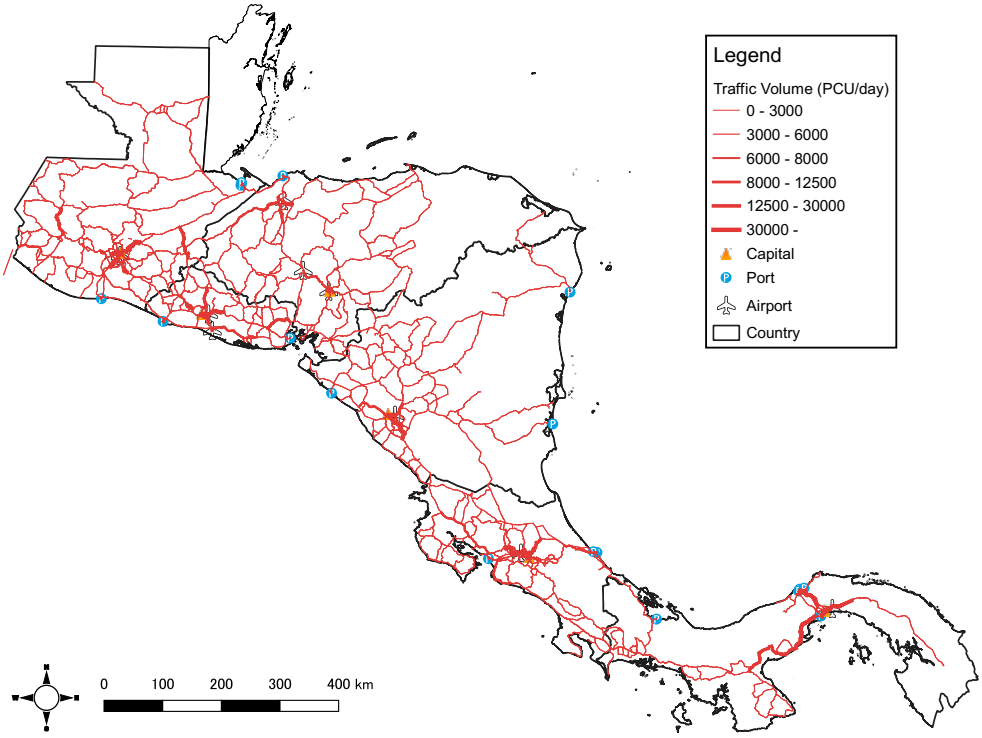
TAZ_No (Internal Zone)	TAZ_Name
1	Chimaltenango
2	Quetzaltenango
3	Petén-Flores
4	Izabal
5	Guatemala
6	Jalapa
7	Santa Rosa-Barberena
8	Escuintla
9	Ahuachapán
10	Santa Ana
11	Chalatenango
12	San Salvador
13	La Paz-Cojutepeque
14	Cabañas-Sensuntepeque
15	San Miguel
16	La Unión
17	Usulután
18	Copán
19	Santa Barbara
20	Lempira
21	Pto. Cortés-San Pedro Sula
22	Yoro-El Progreso
23	La Paz
24	Tegucigalpa
25	Choluteca
26	El Paraíso-Danlí
27	Colón-Tocoa
28	León
29	Estelí
30	Matagalpa
31	RAAN-Bilwi
32	Managua
33	Masaya
34	RAAS-Bluefields
35	Guanacaste-Liberia
36	Alajuela-Ciudad Quezada
37	Puntarenas
38	San José
39	Limón- Guápiles
40	San Isidro de El General
41	Chiriquí-David
42	Arraiján-Burunga
43	Colón
44	Ciudad de Panamá
45	Darién

TAZ_No (External zone)	TAZ_Name
46	Santo Tomás de Castilla
47	Barrios
48	Quetzal
49	Acajutla
50	La Unión
51	Cortés
52	Corinto
53	Limón
54	Moín
55	Caldera
56	Colón
57	Cristóbal
58	Manzanillo
59	Balboa
60	PSA (Rodman)
61	Boca Fruit Almirante
62	Chiriquí Grande

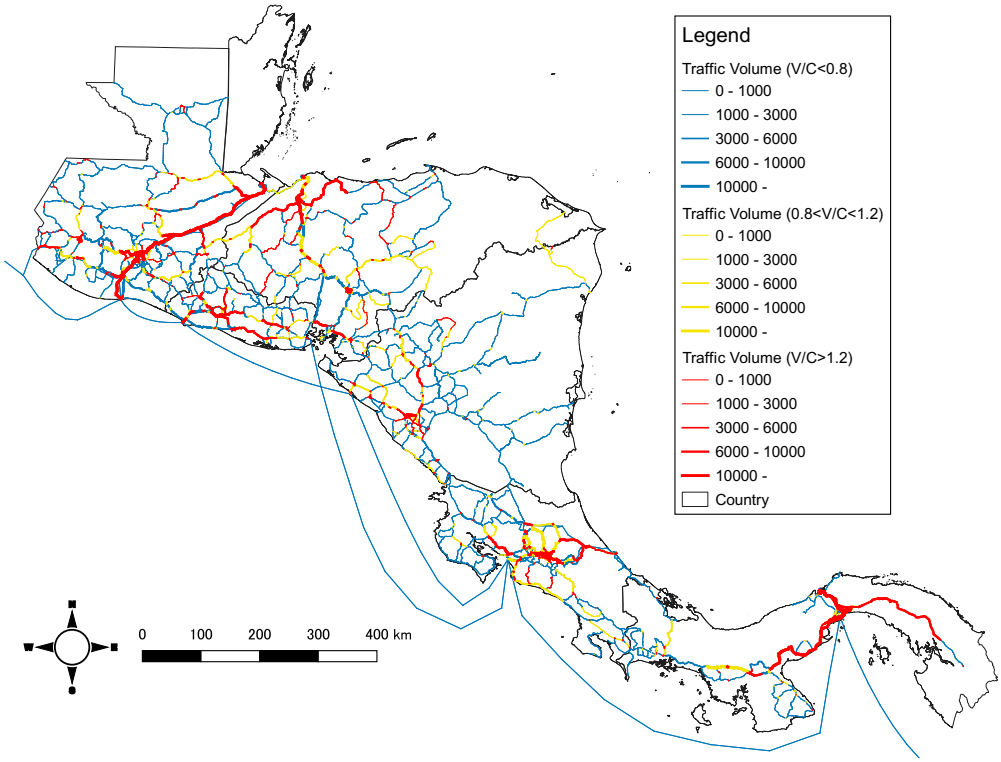
TAZ_No (External zone)	TAZ_Name
63	Charco Azul/Armuelles
64	La Aurora
65	San Oscar Arnulfo Romero y Galdámez
66	Ramón Villeda Morales
67	Toncontín
68	Comayagua-Palmerola
69	Augusto C. Sandino
70	Juan Santamaría
71	Tocumen
72	Melchor de Mencos
73	Tecún Umán
74	La Mesilla
75	El Carmen

Country	Internal Zone	External zone		
		Port	Airport	Land Border
Guatemala	8	3	1	4
El Salvador	9	2	1	
Honduras	10	1	3	
Nicaragua	6	1	1	
Costa Rica	5	3	1	
Panama	7	8	1	
Subtotal	45	18	8	4
			Total	**75**

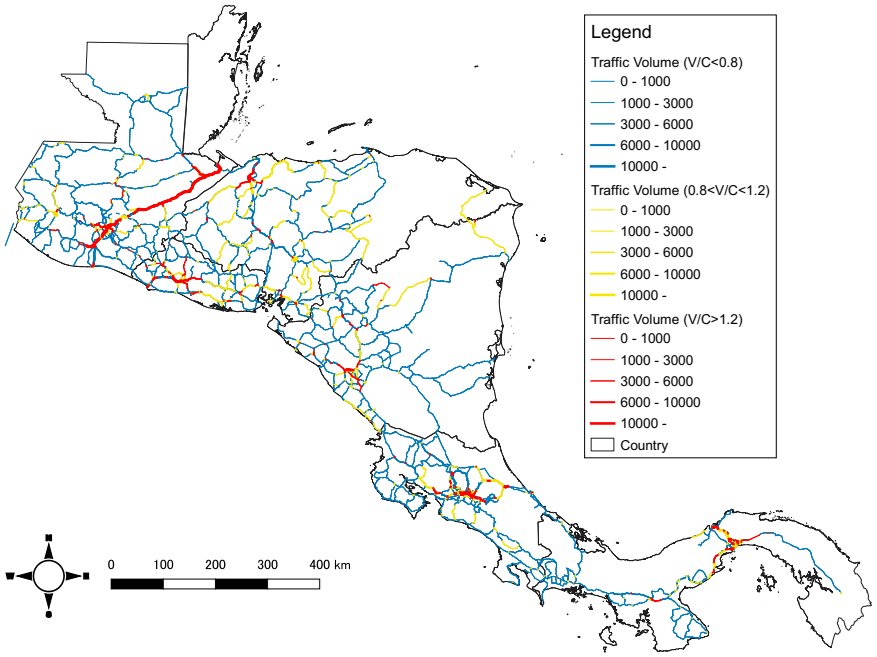
Average Daily Traffic Volume in 2021 per volume to capacity (v/c) ratioio



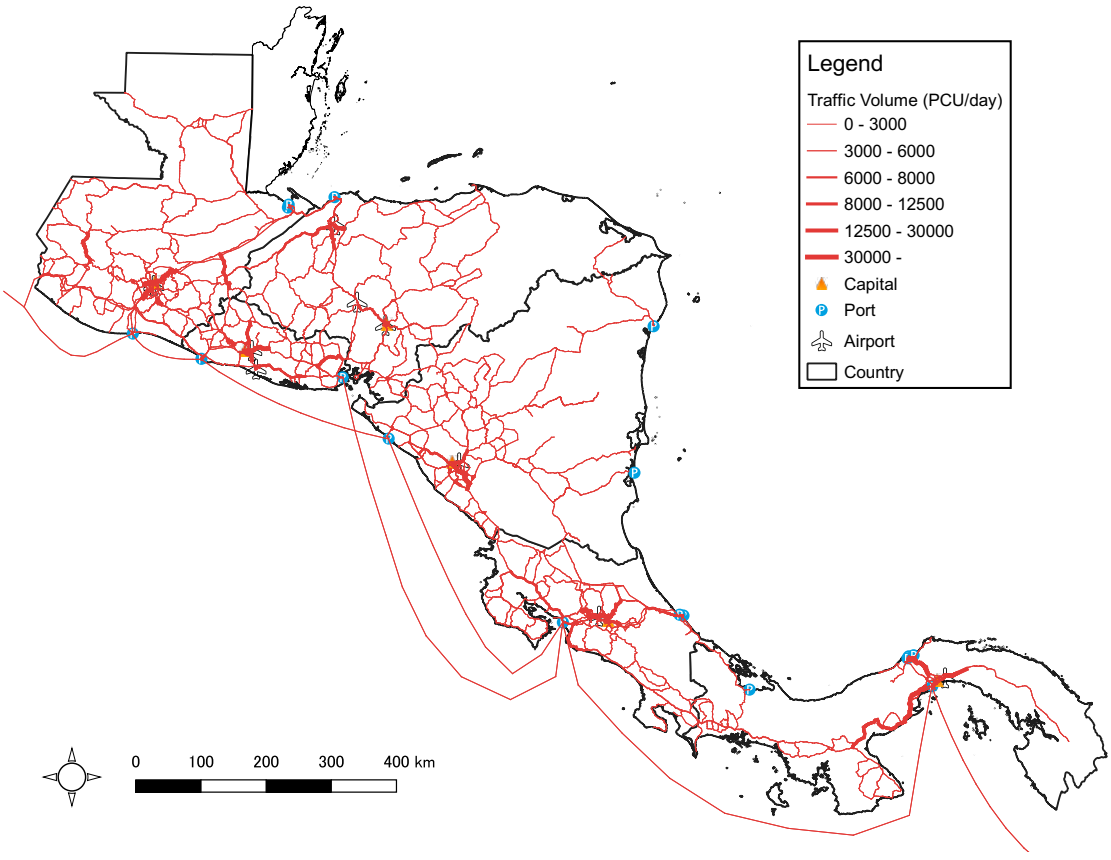
Average Daily Traffic Volume in 2035 (PCU/day)



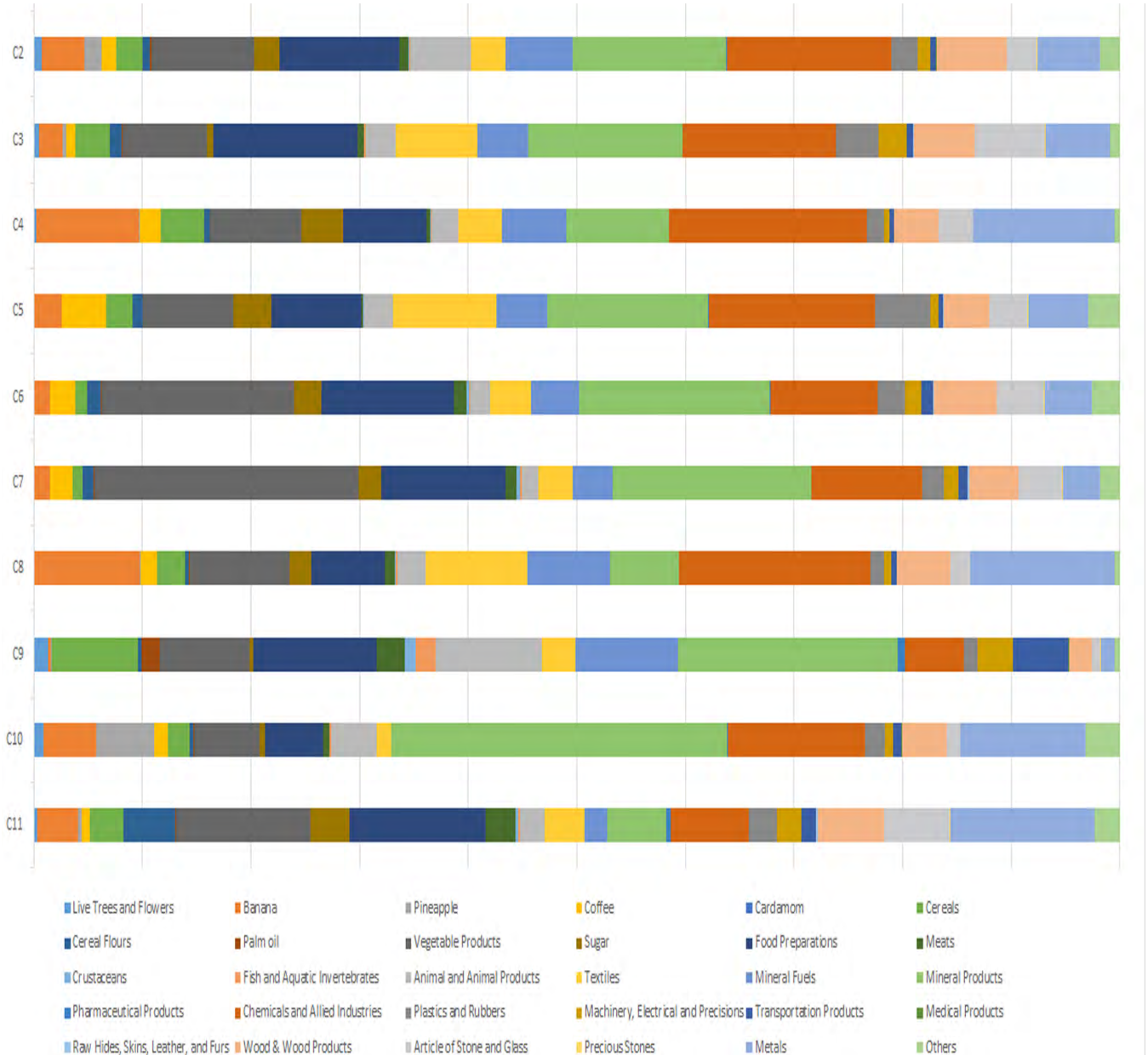
Average Daily Traffic Volume in 2021 per volume to capacity (v/c) ratio



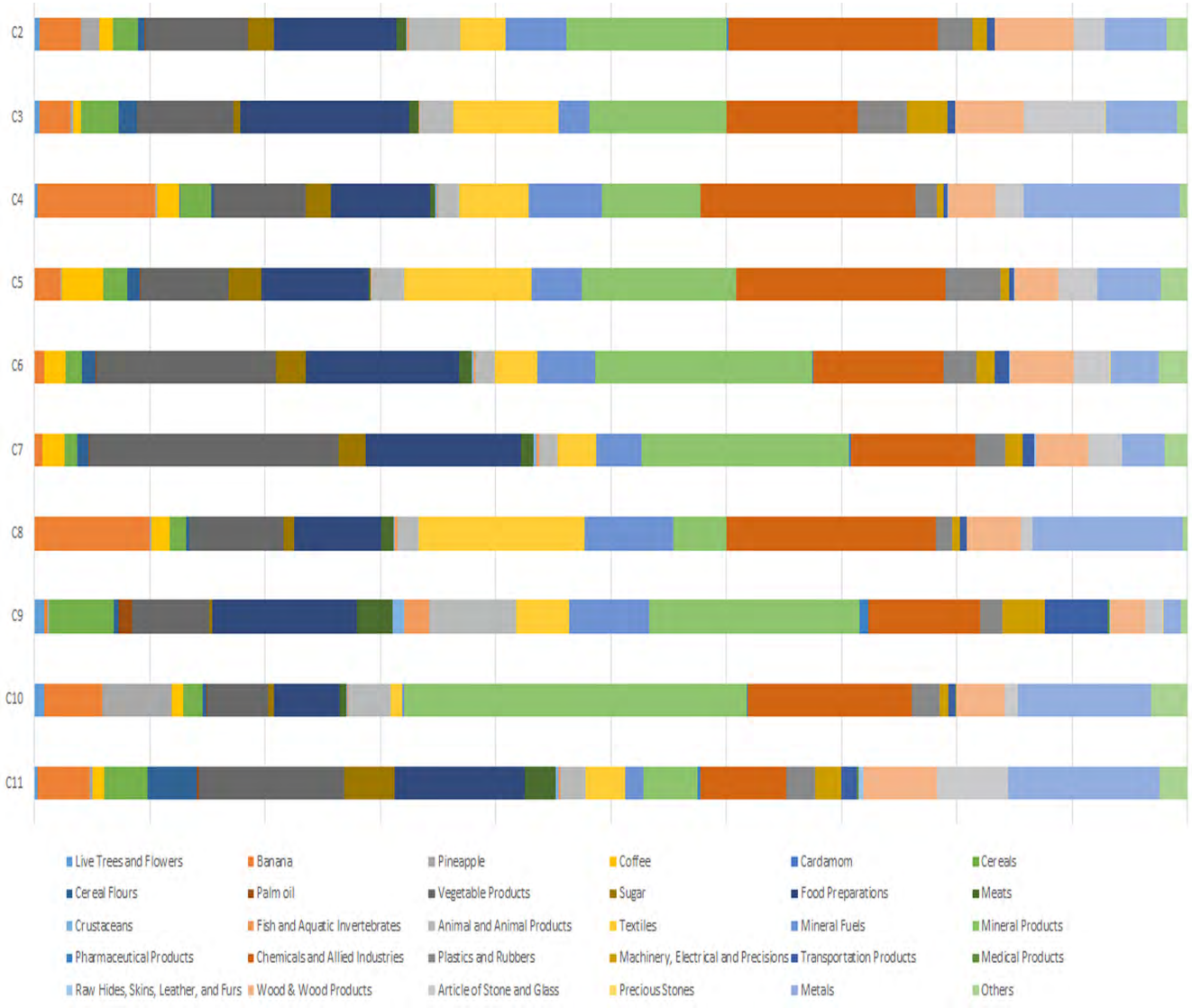
Average Daily Traffic Volume in 2035 (PCU/day)



Share of Cargo Volume (Ton-km by Commodity by Corridor (2021)



Share of Cargo Volume (Ton-km by Commodity by Corridor (2035)



Regional Master Plan Project Proposal

n°	PJ|ID	Country	Sector	Project	Current States	Schedule			Responsible	Project Cost (Mil. USD)
						By 2025	2026 - 2030	After 2030		
1	ACA1	C.A.	Comon	Regional mobility and logistics information system (National and regional observatories for mobility and logistics)	Plan				SIECA / COMITRAN	TBD
2	ACA2	C.A.	Comon	National and regional capacity building for the implementation of the National Master Plan	Plan				SIECA	TBD
3	ACA3	C.A.	Comon	GIS capacity building in MOPs and SIECA.	Plan				SIECA, COMITRAN, GTR SIG,	TBD
4	ACA4	C.A.	Comon	Regional strategy to promote investments in mobility and logistics	Plan				SIECA, investment promotion agencies	TBD
5	ACA5	C.A.	Comon	Regional and national capacity building to promote APPs	Plan				SIECA, CABEI, Cooperation Roundtable.	TBD
6	ACA6	C.A.	Comon	Technical cooperation to implement immediate action plans for the MP	Plan				SIECA, Cooperation Roundtable	TBD
7	ACA7	C.A.	Comon	Project proposal of the connectivity agenda of the deep integration process (Northern Triangle)	Plan				SIECA	TBD
8	CCA1	C.A.	Coordinated Border Management	Multimodal Customs Procedure | Customs Committee / SIECA	On-going				Customs Committee / SIECA	TBD
9	MCA1	C.A.	Port – Maritime	Preparation of Port Legers of Ports in CA	Plan				TBD	1.5
10	MCA2	C.A.	Port – Maritime	Port and Maritime Statisics System Improvement Project	Plan				COCATRAM	4.0
11	MCA3	C.A.	Port – Maritime	Project for Unified Gateway System of Ship Entry/Departure Procedures	Plan				TBD	3.0
12	MCA4	C.A.	Port – Maritime	Short-sea-shipping Project	Plan				COCATRAM, every country	3.0
13	RCA1	C.A.	Railway Transport	Common Technical Railway Standard Project	On-going				BCIE	0.7
14	RCA2	C.A.	Railway Transport	Regional integration model proposal for national railroad projects and facilities for their connectivity and interoperability.	Plan				BCIE	TBD
15	VCA3	C.A.	Road Infrastructure and Land Transport	Common Road Inventory Evaluation System Project	Plan				SIECA	3.0
16	VCA5	C.A.	Road Infrastructure and Land Transport	Maintenance, rehabilitation, and expansion program of Central American road corridors.	Plan				SIECA, COCAVIAL, COMITRAN	0.0
17	VCA6	C.A.	Road Infrastructure and Land Transport	Update and dissemination of standard manuals related to climate change risk management and adaptation in road infrastructure.	Plan				SIECA, CRGRACC	0.0
18	VCA1	C.A.	Road Infrastructure and Land Transport	Freight Vehicle Weight and Dimension Management System Coordination Project	Plan				SIECA	6.0
19	UCA1	C.A.	Urban Logistics	Regional Truck Parking Network Development Program	Plan				SIECA	3.0
20	UCA2	C.A.	Urban Logistics	Regional Truck Booking System	Plan				SIECA / USAID	1.0
21	UCA3	C.A.	Urban Logistics	Truck Driver and Cargo Safety Improvement Program	Plan				SIECA	1.0
22	UCA4	C.A.	Urban Logistics	Truck Operator and Drivers Training Program	Plan				SIECA	1.0
23	UCA5	C.A.	Urban Logistics	Capacity building and development of Urban Logistics Plans in Central American cities.	Plan				SIECA	TBD
24	MC1	CR	Port – Maritime	Caldera Port: Expansion	Plan				INCOP	252.0



25	MC2	CR	Port – Maritime	Caldera Port: Breakwater Reinforcement	On-going				MOPT/INCOP	15.0
26	MC3	CR	Port – Maritime	Golfito Port: Improvement	Plan				INCOP/MOPT	7.5
27	MC4	CR	Port – Maritime	Quepos Port: Improvement	Plan				INCOP/MOPT	5.1
28	MC5	CR	Port – Maritime	Puntarenas Port: Improvement	On-going				INCOP/MOPT	6.1
29	MC6	CR	Port – Maritime	Paquera Terminal: Improvement	Plan				INCOP/MOPT	6.5
30	MC9	CR	Port – Maritime	Limon Port: Program for de-concentration of Logistics Zones	On-going				PPP(APM Moín)	992.0
31	MC10	CR	Port – Maritime	Construction and operation of the Limón Marina and Port of Limón Cruise Terminal	Plan				JAPDEVA	66.5
32	MC11	CR	Port – Maritime	Construction of intermodal transfer zone for cargo and logistics acticities outside Moín Port Complex	Plan				JAPDEVA	55.0
33	MC12	CR	Port – Maritime	Construction of Industrial Park for the Caribbean region in Liverpool, Limón.	Plan				JAPDEVA	10.0
34	MC13	CR	Port – Maritime	Develop a bulk terminal in the Port of Moín	Plan				JAPDEVA	5.0
35	RC1	CR	Railway Transport	Development of Railway Development Masterplan	On-going				Incofer	TBD
36	RC2	CR	Railway Transport	TELCA Project Phase 1 (Moin - TCM Japteva - Siquirres - Rio Frio (Patio GAM Zona Norte))	Plan				Incofer	301.0
37	RC3	CR	Railway Transport	TELCA Project Phase 2 (Rio-Frio - Chilamate)	Plan				Incofer	92.0
38	RC4	CR	Railway Transport	TELCA Project Phase 3 (Chilamate - San Carlos de Muelle)	Plan				Incofer	123.0
39	RC5	CR	Railway Transport	TELCA Project Phase 4 (TCM Japteva - Valle de la Estella)	Plan				Incofer	195.0
40	RC6	CR	Railway Transport	Electric Train Route 1 (San José Atlántico - Cartago - Paraíso	Plan				Incofer	492.4
41	RC7	CR	Railway Transport	Electric Train Route 2 (San Jose Atlantico - Aeropuerto - Alajuela)	Plan				Incofer	401.2
42	RC8	CR	Railway Transport	Electric Train Route 3 (San Jose Atlantico - Belen - Ciruelas)	Plan				Incofer	455.9
43	RC9	CR	Railway Transport	Electric Train Route 4 (Alajuela - Ciruelas)	Plan				Incofer	145.9
44	RC10	CR	Railway Transport	Electric Train Route 5 (Ciruelas - El Coyol)	Plan				Incofer	54.7
45	RC11	CR	Railway Transport	Pacific Train Project (Puntarenas - Puerto Cardera - Ciruelas)	Plan				Incofer	1,080.0
46	RC12	CR	Railway Transport	Rehabilitation of Railway (Cartago - Siquirres)	Plan				Incofer	750.0
47	RC14	CR	Railway Transport	Technical Training to INCOFER Staff and other authority (Diaster Prevention, Non Rail Business, TOD, PPP)	Plan				Incofer	1.0
48	VC01	CR	Road Infrastructure and Land Transport	N1: Road Development: Barranca-Limonal - Cañas	On-going				MOPT	89.8
49	VC02	CR	Road Infrastructure and Land Transport	N2: Road Development: Palmar Norte-Paso Canoas	Plan				MOPT	82.0
50	VC03	CR	Road Infrastructure and Land Transport	N35: Road Development: San carlos: Tramo Sifón-Abundancia - Florencia	Plan				MOPT	567.0
51	VC04	CR	Road Infrastructure and Land Transport	N160: Road Development: Paquera - Playa Naranjo	On-going				MOPT	37.0
52	VC05	CR	Road Infrastructure and Land Transport	N1: Road Development: San José-San Ramón	On-going				MOPT	113.0
53	VC06	CR	Road Infrastructure and Land Transport	N39: Northern Section of San Jose Ring Road	On-going				MOPT	160.0

54	VC07	CR	Road Infrastructure and Land Transport	N2: La Lima and Taras overpasses.	On-going				MOPT	57.0
55	VC08	CR	Road Infrastructure and Land Transport	N32: Road Development: Y Griega Guápiles (Entr. R 4 y R 32)-Limón	Plan				MOPT	520.0
56	VC09	CR	Road Infrastructure and Land Transport	N35: Road Development: Tablillas-Florencia	Plan				MOPT	106.4
57	VC10	CR	Road Infrastructure and Land Transport	N32: Tunnel Redevelopment: Sección Zurquí - Río Sucio	Plan				MOPT	4.8
58	VC11	CR	Road Infrastructure and Land Transport	N27: Road Widening: San José-Caldera	Plan				MOPT	500.0
59	VC12	CR	Road Infrastructure and Land Transport	Muelle - Y Griega (Intersection Rio Frio)	On-going				MOPT	100.0
60	VC13	CR	Road Infrastructure and Land Transport	Limón - Sixaola (road improvement, 8 main bridges + 4 bridges)	On-going				MOPT	50.0
61	VC14	CR	Road Infrastructure and Land Transport	Rehabilitation Section: Radial Pozon - Quebrada Ganado	On-going				MOPT	13.9
62	VC15	CR	Road Infrastructure and Land Transport	N1: Road Development: San Ramón-Barranca (development of a third lane)	Plan				MOPT	49.0
63	VC16	CR	Road Infrastructure and Land Transport	N2: Peripheral Road: Florencio del Castillo	Plan				MOPT	500.0
64	VC18	CR	Road Infrastructure and Land Transport	Truck center and rest area	Plan				MOPT/DGA	8.0
65	VC19	CR	Road Infrastructure and Land Transport	Improvements in Cantonal Network	On-going				MOPT	200.0
66	UC1	CR	Urban Logistics	San Jose: Truck Terminal Development	Plan				MOPT	5.0
67	UC2	CR	Urban Logistics	San Jose Metropolitan Area :Urban Logistics Master Plan	Plan				MOPT / San Jose City	3.0
68	UC3	CR	Urban Logistics	Penas Blancas: Development of LAZ (Logistics Acitivity Zone)	Plan				PPP	40.0
69	UC4	CR	Urban Logistics	Paso Canoas: Development of LAZ	Plan				PPP	40.0
70	UC5	CR	Urban Logistics	Sixaola: Development of LAZ	Plan				PPP	40.0
71	UC6	CR	Urban Logistics	Tablillass: Development of LAZ	Plan				PPP	40.0
72	UC7	CR	Urban Logistics	Moin: Development of LAZ	Plan				PPP	40.0
73	UC8	CR	Urban Logistics	Port of Caldera & Central Valley: Development of LAZ	Plan				PPP	40.0
74	UC9	CR	Urban Logistics	GAM:Development of LAZ	Plan				PPP	35.0
75	AC1	CR	Aeronautical – Airport	Juan Santamaria Airport: Expansion Phase 1(Expansion of the international terminal, relocation of firefighting station,etc.)	Plan				MOPT/AERIS	44.0
76	AC2	CR	Aeronautical – Airport	Juan Santamaria Airport: Expansion Phase 2 (Set back of west side parallel taxiway, extension of east side parallel taxiway, etc.)	Plan				MOPT/AERIS	150.0
77	AC3	CR	Aeronautical – Airport	Juan Santamaria Airport: Expansion Phase 3 (Expansion of the international terminal and apron, RESA in RWY07 side)	Plan				MOPT/AERIS	150.0
78	AC4	CR	Aeronautical – Airport	Juan Santamaria Airport: Expansion Phase 4 (Expansion of the international terminal and apron)	Plan				MOPT/AERIS	150.0



79	AC5	CR	Aeronautical – Airport	Juan Santamaria Airport: Expansion Phase 5 (300 m extension of the runway and parallel taxiway, High landfilling of almost 20 m)	Plan				MOPT/AERIS	150.0
80	AC6	CR	Aeronautical – Airport	Juan Santamaria Airport: F/S on enhancement of logistics automation equipment/procedure (customs, cargo handling/storage)	Plan				MOPT	1.0
81	AC7	CR	Aeronautical – Airport	Juan Santamaria Airport.Enhancement of aviation security standard with EDS (Explosive Detection System)	Plan				MOPT	3.5
82	AC8	CR	Aeronautical – Airport	Juan Santamaria Airport: T/A for improving the service quality of air cargo transport/handling operators	Plan				MOPT	1.0
83	AC10	CR	Aeronautical – Airport	Master Plan Project in Liberia Daniel Oduber Quirós International Airport	Plan				MOPT	1.0
84	AC11	CR	Aeronautical – Airport	Cargo Terminal Development in Liberia Daniel Oduber Quirós International Airport	Plan				MOPT	5.0
85	MS1	SV	Port – Maritime	Acajutla Port : Expansion	On-going				CEPA	330.0
86	MS2	SV	Port – Maritime	La Union Port: Expansion	On-going				CEPA	300.0
87	RS1	SV	Railway Transport	Study on Pacific Train	On-going				CEPA / Fenadesal	0.5
88	RS2	SV	Railway Transport	Rehabilitation of Railway (San Salvador - San Juan Opico - Sonsonate - Acajutla)	Plan				CEPA / Fenadesal	1,296.0
89	RS5	SV	Railway Transport	Development of Railway (Acajutla - Pedro de Alvarado Customs)	Plan				CEPA / Fenadesal	540.0
90	VS01	SV	Road Infrastructure and Land Transport	La Union Port: Modernization of Access Road	Plan				CEPA	6.4
91	VS03	SV	Road Infrastructure and Land Transport	SAN16: Road Widening, Chalchuapa - Magdalena (up to the border)	On-going				MOP	7.7
92	VS04	SV	Road Infrastructure and Land Transport	CA02: Reconstruction of Melara Bridge (damaged by Hurricane Ida in 2009)	Plan				MOP	10.0
93	VS05	SV	Road Infrastructure and Land Transport	CA02W: Road Widening, La Hachadura - Acajutla (CA12S in part)	Plan				MOP	356.4
94	VS06	SV	Road Infrastructure and Land Transport	RN13W: Road Widening, Ahuachapan - Santa Ana (Section Escalante Bridge - Atiquizaya)	On-going				MOP	88.3
95	VS07	SV	Road Infrastructure and Land Transport	CA2: Manuel José Arce Bridge (La Hachadura Border)	On-going				MOP	34.0
96	VS08	SV	Road Infrastructure and Land Transport	CA2: Full expansion of corridor to 4 lanes (or segments with a third lane): Zacatecoluca to La Unión segment, 70 Km approx. (East)	Plan				MOP	1,062.1
97	VS09	SV	Road Infrastructure and Land Transport	CA2: Expansion of corridor to 4 lanes or third lane, Comalapa - Acajutla section (56 Km)	Plan				MOP	996.8
98	VS10	SV	Road Infrastructure and Land Transport	CA2 Eastern section road: La Libertad By-pass	Plan				MOP	15.5
99	VS11	SV	Road Infrastructure and Land Transport	CA01E: San Miguel by-pass	On-going				MOP	84.9
100	VS12	SV	Road Infrastructure and Land Transport	New layout El Delirio-El Carmen (Opening of intersection CA2 with CA1)	Plan				MOP	112.7
101	VS13	SV	Road Infrastructure and Land Transport	CA01E: Expansion to 4 lanes Sirama-El Amatillo: Sirama (La Unión) – Pasaquina section	Plan				MOP	217.4

102	VS14	SV	Road Infrastructure and Land Transport	CA01E: Expansion to 4 lanes Sirama-El Amatillo: Pasaquina - El Amatillo section (10 km)	Plan				MOP	51.5
103	VS15	SV	Road Infrastructure and Land Transport	CA01W and RN07N: Sitio del Niño Overpass	On-going				MOP	16.0
104	VS16	SV	Road Infrastructure and Land Transport	CA4N: Bypass West Apopa	Plan				MOP	38.9
105	VS17	SV	Road Infrastructure and Land Transport	CA12N: Enhancement of Acajutla-Anguiatú axis (expansion of Primary road Sonsonate-Anguiatú), section Sonsonate - Santa Ana	Plan				MOP	58.6
106	VS18	SV	Road Infrastructure and Land Transport	CA08W: Sacacoyo Overpass	On-going				MOP	44.4
107	VS19	SV	Road Infrastructure and Land Transport	CA04N: Expansion to 4 lanes Troncal del Norte Tramo Apopa - El Poy Border (82 Km)	Plan				MOP	658.8
108	VS20	SV	Road Infrastructure and Land Transport	Develop design standards for priority logistics corridors (third channel)	Plan				MOP	0.0
109	VS21	SV	Road Infrastructure and Land Transport	Road Development Master Plan	Plan				MOP	0.0
110	VS22	SV	Road Infrastructure and Land Transport	CA01W: Road Widening, San Cristobal - Santa Ana	Plan				MOP	216.7
111	VS23	SV	Road Infrastructure and Land Transport	CA01E: Road Widening, San Vicente - Rio Lempa (PUENTE CUSCATLÁN)	Plan				MOP	196.1
112	VS24	SV	Road Infrastructure and Land Transport	CA08W: Road Widening, Las Chimanas - Ahuachapan	Plan				MOP	111.1
113	VS25	SV	Road Infrastructure and Land Transport	CA01E: Road Widening, Rio Llempa (PUENTE CUSCATLÁN) - San Miguel	Plan				MOP	370.6
114	VS26	SV	Road Infrastructure and Land Transport	CA07N and RN18E: Road Widening, San Miguel - Pasaquina	Plan				MOP	394.1
115	VS27	SV	Road Infrastructure and Land Transport	CA12N: Road Widening, Santa Ana - Anguiatu	Plan				MOP	26.0
116	VS28	SV	Road Infrastructure and Land Transport	San Salvador Western ring road development	Plan				MOP	70.9
117	VS29	SV	Road Infrastructure and Land Transport	San Salvador Southern ring road development	Plan				MOP	93.2
118	VS30	SV	Road Infrastructure and Land Transport	CA01E: Expansion to 4 lanes, Eastern exit from San Miguel to Sirama (36 km)	Plan				MOP	272.4
119	VS31	SV	Road Infrastructure and Land Transport	Sonsonate Northwest by-pass (CA8W)	Plan				MOP	32.2
120	VS32	SV	Road Infrastructure and Land Transport	CA07N: Road widening Km 18 Military road to Perquín - Nahuaterique – Border with Honduras (64 Km)	Plan				MOP	30.9
121	VS33	SV	Road Infrastructure and Land Transport	RN08N and CAB04N: Rehabilitation of San Rafael Cedros-Sensuntepeque-Puente La Integración (Frontera Honduras) (72 Km) highway	Plan				MOP	50.3



122	VS34	SV	Road Infrastructure and Land Transport	Enhancement of primary road between the San Andrés (Quezaltepeque, Sitio del Niño) and Nueva Concepción. Between Opico and Tacachico	Plan				MOP	28.8
123	VS35	SV	Road Infrastructure and Land Transport	RN14S: Road enhancement El Triunfo (CA1E) - Santiago de María - Usulután (CA2E)	Plan				MOP	19.2
124	VS36	SV	Road Infrastructure and Land Transport	Study for the location of transporter service centers at the border and surroundings of San Salvador Metropolitan Area	Plan				MOP	0.0
125	VS37	SV	Road Infrastructure and Land Transport	USU09S and USU25N: Construction of complementary transversal road Mercedes Umaña -Berlin-CA2E	Plan				MOP	27.7
126	US1	SV	Urban Logistics	San Salvador: Truck Terminal Development	Plan				MOP	5.0
127	US2	SV	Urban Logistics	San Salvador Metropolitan Area :Urban Logistics Master Plan	Plan				MOP / San Salvador City	3.0
128	US3	SV	Urban Logistics	El Amatillo: Development of LAZ	Plan				PPP	40.0
129	US4	SV	Urban Logistics	Acajutla Port : Development of LAZ	Plan				PPP	40.0
130	AS1	SV	Aeronautical – Airport	La Union: F/S for New Pacific Airport	On-going				CEPA	-
131	AS2	SV	Aeronautical – Airport	La Uninon: New airport construction, administration, operation and maintenance	Plan				CEPA / PPP	1,005.0
132	AS3	SV	Aeronautical – Airport	La Union: T/A on airport operation&maintenance	Plan				CEPA	2.0
133	AS4	SV	Aeronautical – Airport	Comalapa Airport: T/A on management (monitoring/evaluation) structure by Gov on SPC	Plan				CEPA	1.0
134	AS5	SV	Aeronautical – Airport	Comalapa Airport: Passenger Terminal and airside development by four phase	On-going				CEPA	1,000.0
135	AS6	SV	Aeronautical – Airport	Comalapa Airport: Cargo Terminal modernaization and operation	Plan				CEPA / PPP	100.0
136	AS7	SV	Aeronautical – Airport	Comalapa Airport: Enhancement of aviation security standard with EDS (Explosive Detection System)	Plan				CEPA	3.5
137	AS8	SV	Aeronautical – Airport	Comalapa Airport: Supporting air cargo transport/handling operators to improve the service quality	Plan				CEPA	1.0
138	CG1	GT	Coordinated Border Management	Melchor de Mencos (GTM-BLZ) : Border Modenization	Plan				SAT/DGA	8.5
139	CG2	GT	Coordinated Border Management	La Mesilla (GTM-MEX): Border Modernization	Plan				SAT/DGA/ DGME	13.5
140	CG3	GT	Coordinated Border Management	El Carmen (GTM-MEX): Border Modernization	Plan				SAT/DGA/ DGME	8.5
141	CG4	GT	Coordinated Border Management	Tecún Umán (GTM-MEX): Border Modernization	Plan				CIV	16.2
142	MG1	GT	Port – Maritime	Quetzal Port: Improvement of Commercial Terminal	Plan				EPQ/PPP	520.0
143	MG2	GT	Port – Maritime	Quetzal Port: Deepening of Port Waters	Plan				EPQ	59.0
144	MG3	GT	Port – Maritime	Quetzal Port: Development of Conteiner Terminal (Phase II)	On-going				PPP(APM Quetzal)	145.0
145	MG4	GT	Port – Maritime	Quetzal Port: Development of Land behind the Port Area	On-going				EPQ/PPP	-
146	MG5	GT	Port – Maritime	SANTOCAS Port: Expansion/Improvement of port facilities	On-going				EMPORNAC	60.7
147	MG6	GT	Port – Maritime	SANTOCAS Port: Development of Liquid & Solid BulkTerminals	Plan				EMPORNAC	40.3
148	MG7	GT	Port – Maritime	SANTOCAS Port: Construction of Cruise Terminal	Plan				EMPORNAC	26.0
149	MG8	GT	Port – Maritime	SANTOCAS Port: Improvement of Access Navigation Channel and Basin	Plan				EMPORNAC	50.0
150	MG9	GT	Port – Maritime	Barrios Port: Expansion	Plan				PPP(Chiquita)	0.3

151	RG1	GT	Railway Transport	Development of Border with Mexico (Bridge rehabilitation at border, Development of Tecun Uman Container Terminal)	On-going				Ferrovías	-
152	RG2	GT	Railway Transport	Study on Rehabilitation of Cargo and Passenger Train in Guatemala	On-going				BCIE, FEGUA	0.5
153	RG3	GT	Railway Transport	Rehabilitation of Railway (Tecun Uman - Mazatenango - Escuintra)	Plan				Ferrovías	3,120.0
154	RG4	GT	Railway Transport	Rehabilitation of Railway (Escuintra - Puerto Quetzal)	Plan				Ferrovías	330.0
155	RG5	GT	Railway Transport	Rehabilitation of Railway (Escuintra - Guatemala City)	Plan				Ferrovías	770.0
156	RG6	GT	Railway Transport	Rehabilitation of Railway (Guatemala City - Zacapa - Los Amates - Morales - Entre Rios - Puerto Barrios)	Plan				Ferrovías	3,180.0
157	RG8	GT	Railway Transport	Development of Railway (Entre Rios - Corinto Customs)	Plan				FEGUA	200.0
158	RG9	GT	Railway Transport	Development of Railway (Escuintra - Pedro de Alvarado Customs)	Plan				FEGUA	1,200.0
159	VG01	GT	Road Infrastructure and Land Transport	CA01E: Barberena - El Molino - Valle Nuevo:Road Improvement	On-going				CIV	117.8
160	VG02	GT	Road Infrastructure and Land Transport	CA02W:Mazatenango - Cuyotenango - San Bernardino Bypass Road Construction	On-going				CIV	153.6
161	VG03	GT	Road Infrastructure and Land Transport	RN07: Huehuetenango - Rio Dulce Road Improvement	On-going				CIV	7.5
162	VG04	GT	Road Infrastructure and Land Transport	Metropolitan Ring: Connection CA01E - CA09S Construction	On-going				CIV	288.0
163	VG06	GT	Road Infrastructure and Land Transport	CA09N: El Rancho - Puerto S.T. Castilla Road Improvement	Plan				CIV	21.2
164	VG07	GT	Road Infrastructure and Land Transport	CA13: Entre Rios border - Puerto S.T. Castilla Road Improvement	Plan				CIV	15.8
165	VG08	GT	Road Infrastructure and Land Transport	RN01: El Carmen border - Quetzaltenango Road Improvement	Plan				CIV	65.7
166	VG09	GT	Road Infrastructure and Land Transport	CA01W: Ciudad de Guatemala- Cuatro Caminos and RN-1 Cuatro Caminos Quetzaltenango	On-going				CIV	147.9
167	VG10	GT	Road Infrastructure and Land Transport	CA02E: Escuintla - Taxisco- El Obraje -Pedro de Alvarado Road Improvement	On-going				CIV	280.0
168	VG11	GT	Road Infrastructure and Land Transport	CA02W: Escuintla- Sta Lucia Cotz -Mazatenango- Retalhuleu - Tecun Uman/ El Carmen Road Improvement	On-going				CIV	399.4
169	VG12	GT	Road Infrastructure and Land Transport	Cocales Bypass Road	Plan				CIV	5.0
170	VG13	GT	Road Infrastructure and Land Transport	CA09S: Ciudad de Guatemala- Palin-Escuintla. Escuintla- pto Quetzal	Plan				CIV	61.3
171	VG14	GT	Road Infrastructure and Land Transport	CA12 Padre Miguel - Angiuiatu (ES frontera)	On-going				CIV	21.9
172	VG15	GT	Road Infrastructure and Land Transport	San Sebastian, Retalhuleu Bypass Road	Plan				CIV	5.0



173	VG16	GT	Road Infrastructure and Land Transport	C-50 road development to 4 lanes (Dry Corridor)	Plan				CIV	97.4
174	VG17	GT	Road Infrastructure and Land Transport	Rehabilitation Section: Tecún Umán – CA-2 West Junction - Maintain 2 lanes	On-going				CIV	2.8
175	VG18	GT	Road Infrastructure and Land Transport	Ciudad Cuyotenango Beltway - 2 lanes	On-going				CIV	35.2
176	VG19	GT	Road Infrastructure and Land Transport	Northern Transversal Corridor (FTN)	On-going				CIV	210.0
177	VG20	GT	Road Infrastructure and Land Transport	Metropolitan Ring: Connection CA01E - CA09N Construction	Plan				CIV	180.0
178	VG21	GT	Road Infrastructure and Land Transport	CA13: Melchor de Mencos border - Morales (-Puerto S.T. Castilla) Road Improvement	Plan				CIV	197.1
179	VG22	GT	Road Infrastructure and Land Transport	RN09N/CITO180: Gracias a Dios border - Quetzaltenango - Pacific Corridor (CA02) Road Improvement	Plan				CIV	32.4
180	VG23	GT	Road Infrastructure and Land Transport	Santo Tomas de Castilla Bypass road	Plan				CIV	6.0
181	VG24	GT	Road Infrastructure and Land Transport	C-50 road development to 4 lanes (Dry Corridor)	Plan				CIV	2.6
182	VG25	GT	Road Infrastructure and Land Transport	Rehabilitation Section: Tecún Umán – CA-2 West Junction - Maintain 2 lanes	Plan				CIV	520.0
183	VG26	GT	Road Infrastructure and Land Transport	Ciudad Cuyotenango Beltway - 2 lanes	Plan				CIV	8.0
184	VG27	GT	Road Infrastructure and Land Transport	CA01: Rehabilitation Section: La Mesilla - Huehuetenango	Plan				CIV	52.0
185	VG28	GT	Road Infrastructure and Land Transport	CA01: Rehabilitation Section: Jutiapa/Santa Rosa border - Quesada	Plan				CIV	29.1
186	VG29	GT	Road Infrastructure and Land Transport	CA10: Rehabilitation Section: Aldea Santa Elena - Santa Teresa	Plan				CIV	19.8
187	UG1	GT	Urban Logistics	Guatemala City: Truck Terminal Development	Plan				MCIV	5.0
188	UG2	GT	Urban Logistics	Guatemala Metropolitan Area :Urban Logistics Master Plan	Plan				MCIV/ Guatemala City	3.0
189	UG3	GT	Urban Logistics	S.T.Castilla Port/Barrios Port: Development of LAZ (Logistics Activity Zone)	Plan				PPP	163.0
190	UG4	GT	Urban Logistics	Guatemala City: Development of LAZ	Plan				PPP	39.0
191	UG5	GT	Urban Logistics	Quetzal Port: Development of LAZ	Plan				PPP	40.0
192	UG6	GT	Urban Logistics	Tecún Umán: Development of LAZ	Plan				PPP	40.0
193	AG1	GT	Aeronautical – Airport	San Jose Domestic Airport: Runway extension for operation of CODE D/E aircraft, Installation of Free Zone	On-going				DGAC	100.0
194	AG2	GT	Aeronautical – Airport	San Jose Domestic Airport: Airport expansion (airside and terminal facility and equipment)	Plan				DGAC	58.0
195	AG3	GT	Aeronautical – Airport	La Aurora Airport: F/S on enhancement of logistics automation equipment/procedure (storage,etc.)	Plan				DGAC	1.5
196	AG4	GT	Aeronautical – Airport	La Aurora Airport.:Rehabilitation of equipment/ procedure of cargo warehouse	Plan				DGAC	10.0

197	AG5	GT	Aeronautical – Airport	La Aurora Airport: T/A of airport operation (Facility maintenance, Ground handling, Cargo management, Institution, etc.)	Plan				DGAC	1.0
198	CH1	HN	Coordinated Border Management	Modernization of SARAH border management system	Plan				Customs	5.0
199	CH2	HN	Coordinated Border Management	Implementation of VUCEH	Plan				Customs	5.1
200	CH3	HN	Coordinated Border Management	Cargo Protection System at LPC (E-Road CP) and traceability of goods	Plan				Customs	3.2
201	CH4	HN	Coordinated Border Management	Customs Monitoring and Control Center CEMA	Plan				Customs	7.2
202	CH5	HN	Coordinated Border Management	Modernization of SENASA processes	Plan				Customs	0.2
203	CH6	HN	Coordinated Border Management	Modernization of LANAR/CENTRES laboratory	Plan				Customs	1.1
204	MH1	HN	Port – Maritime	San Lorenzo: Improvement	Plan				ENP	47.0
205	MH2	HN	Port – Maritime	Amapala Port: Construction of New Port	Plan				SIT, PPP	820.0
206	MH3	HN	Port – Maritime	Castilla Port:Improvement of Terminal	Plan				PPP	548.0
207	MH4	HN	Port – Maritime	Castilla Port:Rehabilitation and Improvement of port	Plan				ENP	8.0
208	MH5	HN	Port – Maritime	Cortes Port: Expansion of Conteriner Terminal	On-going				PPP(OPC)	624.0
209	MH6	HN	Port – Maritime	Cortes Port: Improvement of Bulk Terminal	On-going				PPP(THE)	50.0
210	MH7	HN	Port – Maritime	Cortes Port: Improvement and Expansion	Plan				ENP	85.6
211	MH8	HN	Port – Maritime	Cortes Port: Facility of natural gas power generation plant	Plan				ENP	235.0
212	RH1	HN	Railway Transport	Container Port (dry port) at Potrerillos.	Plan				FNH	20.0
213	RH2	HN	Railway Transport	Rehabilitation of Railway in Honduras (San Pedro Sula - Puerto Cortes)	Plan				FNH	700.0
214	RH3	HN	Railway Transport	Development of Railway (Puero Cortes - Corinto Customs)	Plan				FNH	700.0
215	RH6	HN	Railway Transport	Feasibility of the northwestern region freight railway - first phase- between the municipality of Potrerillos and Puerto Cortés	Plan				FNH	0.5
216	VH01	HN	Road Infrastructure and Land Transport	CA05N: Road Rehabilitation/Construction, Tegucigalpa - Puerto Cortés	On-going				SIT	186.5
217	VH02	HN	Road Infrastructure and Land Transport	RN39: Road Rehabilitation/Construction, San Francisco de la Paz - Gualaco - Corocito	On-going				SIT	8.7
218	VH03	HN	Road Infrastructure and Land Transport	RN15: Road Rehabilitation/Construction, Tegucigalpa - Río Dulce - Limones	On-going				SIT	23.0
219	VH04	HN	Road Infrastructure and Land Transport	CA04: Santa Rosa de Copán - Nuevo Ocotepeque / Nueva Ocotepeque - El Poy / CA10: Nueva Ocotepeque - Agua Caliente	On-going				SIT	108.1
220	VH05	HN	Road Infrastructure and Land Transport	CA01: Road Rehabilitation/Construction, Choluteca - El Espino	On-going				SIT	56.3
221	VH06	HN	Road Infrastructure and Land Transport	CA06: Road Rehabilitation/Construction, Tegucigalpa - Danlí	On-going				SIT	110.9
222	VH07	HN	Road Infrastructure and Land Transport	CA01: Reconstruction of Guasirope Bridge	On-going				SIT	4.0



223	VH08	HN	Road Infrastructure and Land Transport	4 LPC4: CA-4 Chamelecón - La Entrada - Copán Ruinas - El Florido	On-going				SIT	328.0
224	VH09	HN	Road Infrastructure and Land Transport	Development of Road Standards	Plan				SIT	0.1
225	VH10	HN	Road Infrastructure and Land Transport	CA5 and CA13: Rehabilitation and Construction of Puerto Cortes access and Exit Bridges	Plan				SIT	5.3
226	VH11	HN	Road Infrastructure and Land Transport	CA5: Development of San Pedro Sula Bypass	Plan				SIT	16.2
227	VH13	HN	Road Infrastructure and Land Transport	CA13: Reconstruction of Tocoa Bridge	Plan				SIT	2.6
228	VH14	HN	Road Infrastructure and Land Transport	CA13: Reconstruction of Taujica Bridge	Plan				SIT	1.6
229	VH15	HN	Road Infrastructure and Land Transport	CA13: Reconstruction of Aguan Bridge Relief	Plan				SIT	2.6
230	VH16	HN	Road Infrastructure and Land Transport	Truck Center Network (integrated to toll plazas and weight stations)	Plan				SIT	4.0
231	VH17	HN	Road Infrastructure and Land Transport	CA4: Alternative road development to CA4: Quimistan - Corinto	Plan				SIT	40.3
232	VH18	HN	Road Infrastructure and Land Transport	RN112: Upgrading Safety on Dry Canal (fences, pedestrian crossing facilities, street lights, etc.)	Plan				SIT	5.1
233	VH19	HN	Road Infrastructure and Land Transport	CA13: Reconstruction of Saopin Bridge	Plan				SIT	6.6
234	VH20	HN	Road Infrastructure and Land Transport	CA07/11: Rehabilitation Section: La Esperanza - El Quiscamote	Plan				SIT	38.8
235	VH21	HN	Road Infrastructure and Land Transport	CA-13 reconstruction of La Ceiba-Puerto Castilla section	Plan				SIT	112.0
236	VH22	HN	Road Infrastructure and Land Transport	CA-13 2. Tela - Puerto Cortés section study	Plan				SIT	32.0
237	UH1	HN	Urban Logistics	San Pedro Sula: Truck Terminal Development	Plan				SIT	5.0
238	UH2	HN	Urban Logistics	Tegucigalpa: Truck Terminal Development	Plan				Tegucigalpa City	5.0
239	UH3	HN	Urban Logistics	San Pedro Sula Metropolitan Area :Urban Logistics Master Plan	On-going				IDB	3.0
240	UH4	HN	Urban Logistics	Tegucigalpa Metropolitan Area :Urban Logistics Master Plan	Plan				SIT / Tegucigalpa City	3.0
241	UH5	HN	Urban Logistics	Puerto Cortés: Development of LAZ	Plan				PPP	173.0
242	UH6	HN	Urban Logistics	La Barca: Development of LAZ	Plan				PPP	161.0
243	UH7	HN	Urban Logistics	La Alianza - Goascorán: Development of LAZ	Plan				PPP	213.0
244	UH8	HN	Urban Logistics	San Pedro Sula: Development of LAZ	Plan				PPP	50.0
245	UH9	HN	Urban Logistics	Tegucigalpa: Development of LAZ	Plan				PPP	50.0
246	AH1	HN	Aeronautical – Airport	Introduction of Electrical air waybill	Plan				AHAC	1.0
247	AH2	HN	Aeronautical – Airport	Ramón Villeda Morales International Airport: Runway extension, passenger and cargo terminal expansion	On-going				AHAC / PPP	28.0

248	AH3	HN	Aeronautical – Airport	Ramón Villeda Morales International Airport: Enhancement of aviation security standard with EDS (Explosive Detection System)	Plan				AHAC	3.5
249	AH4	HN	Aeronautical – Airport	Ramón Villeda Morales International Airport: T/A for improving the service quality of air cargo transport/handling operators	Plan				AHAC	1.0
250	AH5	HN	Aeronautical – Airport	Ramón Villeda Morales International Airport: T/A on airport operation&maintenance	Plan				AHAC	2.0
251	AH6	HN	Aeronautical – Airport	Palmerola Airport: T/A on management (monitoring/evaluation) structure by Gov on SPC	Plan				AHAC	1.0
252	CN1	NI	Coordinated Border Management	Modernization of the ASYCUDA technological architecture	Plan				DGA	1.5
253	CN2	NI	Coordinated Border Management	Contingency site of the customs management system	Plan				DGA	2.0
254	CN3	NI	Coordinated Border Management	Single Window for Foreign Trade and process reengineering	Plan				DGA	5.0
255	CN4	NI	Coordinated Border Management	Central American Border GC Strategy Agreements: Transmission of Phytosanitary and Animal Health Certificates	Plan				DGA	0.2
256	CN5	NI	Coordinated Border Management	Central American Border GC Strategy Agreements: Cargo security cameras and equipment	Plan				DGA	2.0
257	CN6	NI	Coordinated Border Management	Central American Border GC Strategy Agreements: Advance declaration	Plan				DGA	0.2
258	MN1	NI	Port – Maritime	Integrated information system which connects to VUCEN	Plan				MTI/EPN	10.0
259	MN2	NI	Port – Maritime	Cruise Terminal Development	Plan				EPN	-
260	MN3	NI	Port – Maritime	Corinto Port : Capacity Improvement	Plan				EPN	153.0
261	MN4	NI	Port – Maritime	Sandino Port: Improvement	Plan				EPN	60.5
262	MN5	NI	Port – Maritime	Bulefields Port: New Port Development	Plan				MTI/EPN	594.0
263	MN6	NI	Port – Maritime	Puerto Cabezas (Bilwi): Improvements	Plan				EPN	18.5
264	MN7	NI	Port – Maritime	Puerto Cabezas (Bilwi):Enhancement Inland water Tarnsport	Plan				MTI	203.9
265	RN1	NI	Railway Transport	Feasibility study and design of the freight railway between Puerto Corinto – Puerto Sandino - Managua	Plan				MTI	0.5
266	VN01	NI	Road Infrastructure and Land Transport	NIC-8: Junction Las Conchitas - Masachapa	On-going				MTI	28.3
267	VN02	NI	Road Infrastructure and Land Transport	NIC-62: Entrance El Guacalito - Las Salinas	On-going				MTI	12.5
268	VN03	NI	Road Infrastructure and Land Transport	NN-51: Abisinia Bridge - Empalme Maleconcito	On-going				MTI	23.8
269	VN04	NI	Road Infrastructure and Land Transport	NIC-9: Junction San Francisco - San Ramón	On-going				MTI	4.0
270	VN05	NI	Road Infrastructure and Land Transport	NIC-5: Waslala - Siuna	On-going				MTI	29.0
271	VN06	NI	Road Infrastructure and Land Transport	NIC-12: New León Beltway	On-going				MTI	10.2
272	VN07	NI	Road Infrastructure and Land Transport	R_NR14: Road Construction: Empalme de Telica - Puerto Corinto	On-going				MTI	77.0
273	VN08	NI	Road Infrastructure and Land Transport	R_PR1 : Road Construction : Nejapa - Ticuantepe - Tipitapa	Plan				MTI	183.1



274	VN09	NI	Road Infrastructure and Land Transport	R_IW2 : Improvement(Widening) : Leon - Chinandega(NIC-12A)	On-going				MTI	158.1
275	VN10	NI	Road Infrastructure and Land Transport	R_IW1 : Improvement(Widening) : NIC-2 Int. - Leon(NIC-12A)	Plan				MTI	225.8
276	VN11	NI	Road Infrastructure and Land Transport	R_IW6 : Improvement(Widening) : Empalme Guanacaste - Nandaime - Rivas(NIC-2)	Plan				MTI	129.1
277	VN12	NI	Road Infrastructure and Land Transport	R_IC3 : Improvement (Reconstruction) : Rio Blanco - Puerto Cabezas(NIC-21B)	On-going				MTI	158.4
278	VN13	NI	Road Infrastructure and Land Transport	R_IR: Road Rehabilitation: Lovago - Pajaro Negro	Plan				MTI	41.6
279	VN14	NI	Road Infrastructure and Land Transport	R_IR2 : Rehabilitation (Re-classification) : La Curva - Nueva Guinea(NIC-71)	Plan				MTI	50.3
280	VN15	NI	Road Infrastructure and Land Transport	R_BM1 : New Bridge(Missing link) : Puente El Tamarindo	On-going				MTI	1.7
281	VN16	NI	Road Infrastructure and Land Transport	Widening of the Managua-Chinandega corridor	Plan				MTI	131.0
282	VN17	NI	Road Infrastructure and Land Transport	Widening of Nadaime-Peñas Blancas	Plan				MTI	113.7
283	VN18	NI	Road Infrastructure and Land Transport	Rehabilitation of the Acoyapa-San Pancho section	Plan				MTI	77.4
284	VN19	NI	Road Infrastructure and Land Transport	Rehabilitation of the Acoyapa-San Benito section	Plan				MTI	82.2
285	VN20	NI	Road Infrastructure and Land Transport	Improvement of Matagalpa-Waslala-Siuna section	On-going				MTI	155.5
286	VN21	NI	Road Infrastructure and Land Transport	Improvement of Road 26 (Telica - San Isidro)	On-going				MTI	64.8
287	VN22	NI	Road Infrastructure and Land Transport	Construction of the Wanawana - San Pedro del Norte - La Cruz de Río Grande link	On-going				MTI	151.2
288	VN23	NI	Road Infrastructure and Land Transport	Improvement of Teustepe-Matagalpa cargo (80 and 19)	On-going				MTI	76.2
289	VN24	NI	Road Infrastructure and Land Transport	Chinandega Beltway	Plan				MTI	14.0
290	VN25	NI	Road Infrastructure and Land Transport	Ring road of the city of Rivas	Plan				MTI	33.6
291	VN26	NI	Road Infrastructure and Land Transport	Matagalpa ring road (east)	On-going				MTI	16.8
292	VN27	NI	Road Infrastructure and Land Transport	Juigalpa beltway	On-going				MTI	58.8
293	VN28	NI	Road Infrastructure and Land Transport	Granada beltway	On-going				MTI	41.4

294	VN29	NI	Road Infrastructure and Land Transport	Estelí beltway	On-going			MTI	42.0
295	VN30	NI	Road Infrastructure and Land Transport	Link between Sapoá - El Naranjo	On-going			MTI	39.2
296	VN31	NI	Road Infrastructure and Land Transport	La Azucena - Boca de Sábalos	On-going			MTI	42.5
297	VN32	NI	Road Infrastructure and Land Transport	Road marking regulations on trunk load axles	Plan			MTI	0.3
298	VN33	NI	Road Infrastructure and Land Transport	Inventory and registration of cargo fleet	Plan			MTI	4.5
299	VN34	NI	Road Infrastructure and Land Transport	Modernization and diversification plan of the cargo fleet	Plan			MTI	0.4
300	VN35	NI	Road Infrastructure and Land Transport	Design of financing modalities for the fleet	Plan			MTI	0.2
301	VN36	NI	Road Infrastructure and Land Transport	Reform of the Weight and Dimensions Control Program	Plan			MTI	0.5
302	VN37	NI	Road Infrastructure and Land Transport	Vehicle technical inspection program	Plan			MTI	2.0
303	VN38	NI	Road Infrastructure and Land Transport	Expansion of access to the Guasaule border post	On-going			MTI	70.6
304	VN39	NI	Road Infrastructure and Land Transport	Rehabilitation Junction Victoria de Julio -Victoria de Julio	On-going			MTI	6.5
305	VN40	NI	Road Infrastructure and Land Transport	Las Nubes highway construction – San Isidro de Bolas	On-going			MTI	10.3
306	VN41	NI	Road Infrastructure and Land Transport	Road construction Ticuantepe - Las Nubes	On-going			MTI	10.6
307	VN42	NI	Road Infrastructure and Land Transport	Construction of the Sébaco ring road	On-going			MTI	10.3
308	VN43	NI	Road Infrastructure and Land Transport	Rehabilitation of Black Bird-El Triunfo Junction	On-going			MTI	25.4
309	VN44	NI	Road Infrastructure and Land Transport	Expansion of the Santa Fe - San Pancho Bridge	On-going			MTI	9.2
310	VN45	NI	Road Infrastructure and Land Transport	Reconstruction of Mulukuku Bridge	On-going			MTI	5.6
311	VN46	NI	Road Infrastructure and Land Transport	Rehabilitation Section: Villa El Carmen (5.65 km After) - INCAE Entrance (3.75 km Before)	On-going			MTI	4.1
312	VN47	NI	Road Infrastructure and Land Transport	Ciudad Diriamba Beltway - 2 lanes	On-going			MTI	66.0
313	VN48	NI	Road Infrastructure and Land Transport	R_NR1 : Road Construction : San Juan Del Sur - El Coyol	Plan			MTI	17.6



314	VN49	NI	Road Infrastructure and Land Transport	R_NR3 : Road Construction : El Rama - Las Brenas - San Francisco	Plan				MTI	42.3
315	VN50	NI	Road Infrastructure and Land Transport	R_BM2 : New Bridge(Missing link) : Puente Baquas	Plan				MTI	1.0
316	VN51	NI	Road Infrastructure and Land Transport	R_BD5 : Bridge Replacement(Damaged) : Paso Real Bridge(Esteli)	Plan				MTI	1.8
317	VN52	NI	Road Infrastructure and Land Transport	R_BD8 : Bridge Replacement(Damaged) : La Esperanza Bridge	Plan				MTI	15.0
318	VN53	NI	Road Infrastructure and Land Transport	Widening of West (peripheral) arc of Managua (Nejapa - Los Brasiles section)	Plan				MTI	112.0
319	VN54	NI	Road Infrastructure and Land Transport	Improvement of the Sébaco-Yalagüina section	Plan				MTI	86.7
320	VN55	NI	Road Infrastructure and Land Transport	Improvement of Yalagüina-Las Manos and Ylagüina-El Espino	Plan				MTI	65.3
321	VN56	NI	Road Infrastructure and Land Transport	Improvement of Mateare-MalAPsillo section	Plan				MTI	57.3
322	VN57	NI	Road Infrastructure and Land Transport	Improvement of El Tortuguero - Wapi - El Rama Highway	Plan				MTI	133.0
323	VN58	NI	Road Infrastructure and Land Transport	Construction of the Nadaime-Masaya-Periférico highway	Plan				MTI	50.8
324	VN60	NI	Road Infrastructure and Land Transport	Improvement of the Matagalpa-Jinotega-Condega cargo (3)	Plan				MTI	121.6
325	VN61	NI	Road Infrastructure and Land Transport	Mulukukú-Waslala connection	Plan				MTI	63.0
326	VN62	NI	Road Infrastructure and Land Transport	Waspan-Bilwi link	Plan				MTI	110.5
327	UN1	NI	Urban Logistics	Managua: Truck Terminal Development	Plan				MTI	5.0
328	UN2	NI	Urban Logistics	Bluefields: Development of LAZ	Plan				PPP	15.0
329	AN1	NI	Aeronautical – Airport	Introduction of Electrical air waybill	Plan				AHAC	1.0
330	AN2	NI	Aeronautical – Airport	Augusto Cesar Sandino International Airport: Expansion Phase 1(Runway 800m extension and taxiway extension)	On-going				EAAI	5.0
331	AN3	NI	Aeronautical – Airport	Augusto Cesar Sandino International Airport: Expansion Phase 2 (New cargo terminal, apron and taxiway to new cargo area)	Plan				EAAI	70.0
332	AN4	NI	Aeronautical – Airport	Augusto Cesar Sandino International Airport: Expansion Phase 3 (New domestic passenger terminal and apron)	Plan				EAAI	50.0
333	AN5	NI	Aeronautical – Airport	Augusto Cesar Sandino International Airport: Expansion Phase 4 (International terminal expansion)	Plan				EAAI	60.0
334	AN6	NI	Aeronautical – Airport	Augusto C. Sandino International Airport:Enhancement of aviation security standard with EDS (Explosive Detection System)	Plan				AHAC	3.5
335	AN7	NI	Aeronautical – Airport	Augusto C. Sandino International Airport: T/A for improving the service quality of air cargo transport/handling operators	Plan				AHAC	1.0

336	AN8	NI	Aeronautical – Airport	Bluefield's and Corn Island airports :F/S on airport development plan	On-going				EAAI	2.0
337	AN9	NI	Aeronautical – Airport	Bluefield's and Corn Island airports: D/D and Construction	Plan				EAAI	1,000.0
338	MP1	PA	Port – Maritime	Moin Port: Redevelopment Project (Warf 5-7)	Plan				AMP/PPP	2,961.0
339	MP2	PA	Port – Maritime	Moin Port: Construction of Container Terminal	On-going				PPP(NMG/ MSC)	1,400.0
340	VP01	PA	Road Infrastructure and Land Transport	N21/10/11: Rehabilitation of the Pan-American Highway Gualaca-Chiriquí Grande, Provinces of Chiriquí and Bocas del Toro	On-going				MOP	44.8
341	VP02	PA	Road Infrastructure and Land Transport	N1: Road Widening: Corridor 1 (6km) of Corredor de las Playas (La Chorrera – Santa Cruz) (6 lanes, viaduct + road expansion), Province of West Panama	On-going				MOP	282.0
342	VP03	PA	Road Infrastructure and Land Transport	N1: Road Rehabilitation and Widening: Las Americas Bridge – Arraijan (8 lanes)	On-going				MOP	413.0
343	VP04	PA	Road Infrastructure and Land Transport	N3: Road Expansion to 4 lanes: Villa Grecia - Don Bosco Bridge	On-going				MOP	41.0
344	VP05	PA	Road Infrastructure and Land Transport	Inland Corridor: Road Rehabilitation: Miguel de la Borda - Gatun (64km)	On-going				MOP	41.9
345	VP06	PA	Road Infrastructure and Land Transport	N1: Alternative road development to Corredor Playas: Howard - Veracruz - Vacamonte - Chorerra - Sajalices (Coastal Highway)	On-going				MOP	900.0
346	VP07	PA	Road Infrastructure and Land Transport	Design and Construction of the Fourth Bridge Over the Panama Canal	On-going				MOP	1,518.0
347	VP08	PA	Road Infrastructure and Land Transport	Design and Construction for Rehabilitation and Expansion of La Concepción Highway (CPA) - Cuesta Piedra - Volcán	On-going				MOP	83.9
348	UP1	PA	Urban Logistics	Panama city: Truck Terminal Development	Plan				MOP	5.0
349	UP2	PA	Urban Logistics	Panama City: Urban Logistics Master Plan	Plan				MOP / Panama City	3.0
350	UP3	PA	Urban Logistics	Paso Canoas: Development of LAZ	Plan				PPP	40.0
351	AP1	PA	Aeronautical – Airport	Tocumen International Airport: Development of terminal 2, cargo warehouse and free trade zone	On-going				Tocumen S.A.	TBD
352	AP2	PA	Aeronautical – Airport	Tocumen International Airport: Development of 3rd runway, Passenger Terminal 3 and 4	On-going				Tocumen S.A.	TBD
353	AP3	PA	Aeronautical – Airport	Tocumen International Airport: F/S on enhancement of logistics automation equipment/procedure (customs, cargo handling/storage)	Plan				AAC/Tocumen S.A	1.0
354	AP4	PA	Aeronautical – Airport	Tocumen International Airport: Enhancement of aviation security standard with EDS (Explosive Detection System)	Plan				AAC/Tocumen S.A	3.5
355	AP5	PA	Aeronautical – Airport	Tocumen International Airport: T/A for improving the service quality of air cargo transport/handling operators	Plan				AAC/Tocumen S.A	1.0
356	AP6	PA	Aeronautical – Airport	David "Enrique Malek" International Airport:Development of new cargo warehouse	Plan				AAC	11.0
357	CCP1	CR/PA	Coordinated Border Management	Paso Canoas(CRC-PNM): Border Intergration (OSBP)	On-going				ANA	TBD
358	CCP2	CR/PA	Coordinated Border Management	Sixaola(CRC-PNM): Border Modenization	Plan				ANA	13.5



359	CGH1	GT/HN	Coordinated Border Management	Enhancement of facilities and procedures within the Customs Union process - Guatemala - Honduras (Corinto, El Florido, and Aguacaliente border crossings)	On-going				SIECA, Direcciones de aduana	TBD
360	MGM1	GT/MX	Port – Maritime	Vessel Service between Quetzal Port and Chiapas Port	Plan				GT, MX	4.0
361	CGS1	GT/SV	Coordinated Border Management	Pedro Alvarado(GT)/ La Hachadura (SV): Border crossing modernization (single window)	Plan				GT: CIV, SAT SV:MOPDVDU, DGA	25.0
362	CGS2	GT/SV	Coordinated Border Management	La Ermita(GTM)/Anguiatu (SLV): Border Modernization (OSBP)	Plan				GT: CIV, SAT SV:MOPDVDU, DGA	8.5
363	CGS3	GT/SV	Coordinated Border Management	San Cristóbal (GTM-SLV):Border Modernization	Plan				GT: CIV, SAT SV:MOPDVDU, DGA	8.5
364	CGS4	GT/SV	Coordinated Border Management	Valle Nuevo (GTM-SLV):Border Modernization	Plan				DGA / DGME	13.5
365	CGS5	GT/SV	Coordinated Border Management	Las Chimanas: Border Modernization(OSBP)	Plan				MOP, DGA	13.5
366	CHN1	HN/NI	Coordinated Border Management	Guasaule(HND-NIC): Border Modenization	On-going				MTI	57.7
367	CHN2	HN/NI	Coordinated Border Management	El Espino(HND-NIC): Border Modenization	Plan				MTI	2.0
368	CHN3	HN/NI	Coordinated Border Management	Las Manos(HND-NIC): Border Modenization	Plan				MTI	2.0
369	CNC1	NI/CR	Coordinated Border Management	Penas Blancas(NIC-CRC): Border Modenization (OSBP)	On-going				MTI	10.0
370	CNC2	NI/CR	Coordinated Border Management	San Panchos(NIC-CRC): Border Modenization	Plan				MTI	10.0
371	MSC1	SV/CR	Port – Maritime	Ferry Service project between La Union Port and Cardela Port	Plan				SV, CR	4.0
372	CSH1	SV/HN	Coordinated Border Management	El Amatillo (SV-HN): Border crossing modernization (single window)	On-going				MOP, DGA	TBD
373	CSH2	SV/HN	Coordinated Border Management	El Poy: Border Modernization	Plan				MOP, DGA	TBD
374	MSHN	SV/HN/ NI	Port – Maritime	Tri-national ferry in the Gulf of Fonseca	Plan				SV, HN,NI	0.8

NOTE: TBD = To be defined

The Regional Mobility and Logistics Master Plan 2035 (M/P) is the first instrument of its kind in Central America, prepared under an initiative of the Sectoral Council of Transport Ministers of Central America (COMITRAN).

Its objective is to promote prosperity and competitiveness in Central America by improving mobility and logistics to foster equitable spatial development in the region. The M/P seeks to strengthen trade and productive relations between countries in the region through strategic corridors that improve internal and external connectivity systems between current and future trading partners. The M/P is a guiding instrument for the construction of a Regional Mobility and Logistics System. Its formulation involved unprecedented interinstitutional and multisectoral engagement, with the leading role played by the Central American Ministries of Public Works and Transport, as well as the Intersectoral Logistics Commission (CLI), coordinated through SIECA.

The Japan International Cooperation Agency (JICA), aware of the importance of logistics in Central America as a mechanism to reduce poverty and increase regional competitiveness, provided technical and financial assistance for the implementation of this Master Plan, which was assisted by a robust team of Japanese and Central American experts who worked for two years to collect, analyze and systematize relevant information. This led to the production of four previous reports and two complementary studies, which constitute the technical basis and referential foundation of this M/P.













In terms of mobility and logistics, the challenges are considerable and the needs to be addressed are numerous. However, the search for synergies to achieve funding and investments to develop strategic projects capable of generating benefits is very well grounded in this M/P, which gives everyone who contributed to its preparation a sense of satisfaction. The adoption of this M/P is a starting point for the joint management strategy for implementing the projects that Central America needs in the long term. Therefore, stakeholders, leaders and investors with an interest in the region are invited to read this document, learn about the initiatives contained in it and find opportunities for joining the various proposed areas of action that may be of their interest or competence.

