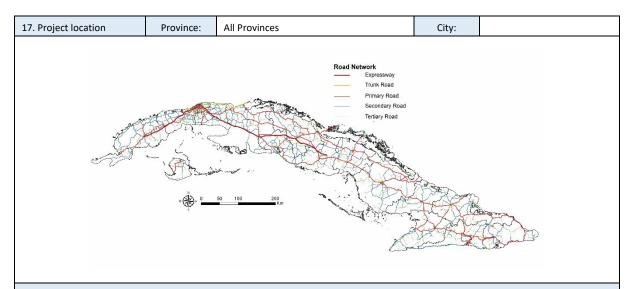
Project for Formulation of Nati	onal Transport	Master Plan in th	he Republic of Cuba
			Final Report

Chapter 6

Appendix A1: Road & Bridge Sector

1. Project Code	RR001	2 Project Ti	tle	Study and mo	dernization	of r	means for upo	dating th	e inve	ntory of roads a	nd bridges	
1. Troject code	NBOOT	2.110,000.11	iic.	with Cimab s	upport, succ	eed	ing the Projec	ct "Anda	riego \	/ial" (Completio	n date 2021)	
		Г				1						
3. Implementation	n Agency	1	•	**		4	. Implementa	tion peri	iod			
·	σ,	GeoSí (state enterprise) under the Min					•					
	National Roads Center Roadway Centers (CP GeoSí (state enterpris of the Revolutionary of the				s (MINFAR)							
5. Project cost (bu	ıdget)	75 million CUP	(3.0	million USD)			Start	202	2	End	2026	
6. Source of finan	ce		t			l fin	ancing agenci	es	□ Fo	reign Investors		
	1											
		port Planning		Logistics/Cargo)				\boxtimes	Immediate		
	⊠ Road	/Bridge		Bus passenger	transport					(2022 – 2023)		
7 Castan	Sector			Environment			8. Project		\boxtimes	Short-term		
7. Sector	☐ Aviati	on		Institution/Reg	gulation		Priority			(2024 – 2026)		
	☐ Port/I	Maritime		Relevant busin	ess and oth	ers				Medium-term		
										(2027 – 2030)		
				1								
	Key Areas	S		9. Objective (code)		10. Strategy	(code)		11. Goal (cod	e)	
1. Planning and co	1. Planning and coordination						1.1.1, 1.5.1			1.1.1.1, 1.5.1	.1	
Planning and coordination Transport infrastructure development												
3. Environment, s	afety, and	security										
Environment, safety, and security Transport service and industry development												
5. Transport prici	ng and reso	ource allocation										
6. Institutional an	d regulato	ry development										
12. Purpose of the	e project				13. Ex	pect	ted Benefits/0	Outcome	es.			
To define curre	ent and fut	ure conditions of	roa	ds/bridges and	• Maj	ppir	ng current and	d future	condit	ions and mainte	nance cost	
investment pri	orities by a	nalyzing the net	work	condition.	• Pres	sent	ting future tre	ends in te	erms c	of road quality in	idex and	
• To identify a bu	ıdget plan	for the entire roa	ad n	etwork or bridg	e oth	er ir	ndicators					
with a forecast	of paveme	ent performance	and	road user	• Trea	atm	ent coverage	, as % of	the ne	etwork per year,	can be	
effects.					esti	estimated.						
• To calculate ec	Transport service and industry development Transport pricing and resource allocation Institutional and regulatory development Properties To define current and future conditions of investment priorities by analyzing the net to identify a budget plan for the entire rowith a forecast of pavement performance effects.			e requirements	• Savi	ings	in capital and	d operati	ional e	expenses in term	ns of	
from the progr	am plan				mai	nte	nance expend	diture an	d the	implications of r	maintenance	
• To estimate the	e economi	or engineering	viabi	ility of	ехр	end	liture in terms	of traffi	c dela	ys through prop	er program	
road/bridge inv	estment p	rojects by perfor	min	g lifecycle	plar	nnin	ng.					
analysis of pave	ement perf	formance, mainte	enar	nce, and	• Red	lucti	ion of traffic a	accidents	6			
improvement e	effect toge	ther with estimat	ing	road user cost.	• Red	lucti	ion of pollutio	on (envir	onme	nt)		
 To identify app 	ropriate ro	ad sector policie	s (fu	unding policies,								
impact of road	transport	policies)										
14. Project Descri	ption				15. So	cial-	-environment	al consid	leratio	on		
 Updating road, 	bridge inv	entory and ident	ifyin	g main	1) So	cial	impacts – po	sitive im	pacts	are expected		
road/bridge wo	National Road: Roadway Cent GeoSí (state er of the Revoluti Diect cost (budget) Transport Planning Road/Bridge Railway Aviation Port/Maritime Key Areas Inning and coordination Insport infrastructure development Dironment, safety, and security Insport service and industry development Dironment, safety, and security Insport service and industry development Dironment pricing and resource allocation Dittutional and regulatory development Dironse of the project Description Dironment project Description Diroye of pavement performance Diroye of the project Diroye of the			ent priorities by	2) Na	tura	al Environmei	nt – no si	gnific	ant impacts are	expected	
analyzing curre	Transport infrastructure development Environment, safety, and security Transport service and industry development Transport pricing and resource allocation Institutional and regulatory development To define current and future conditions of roads/investment priorities by analyzing the network concepts of pavement performance and road effects. To calculate economic benefit and expenditure reform the program plan To estimate the economic or engineering viability road/bridge investment performance, maintenance, improvement effect together with estimating road To identify appropriate road sector policies (fund impact of road transport policies) Project Description Updating road/bridge inventory and identifying manalyzing current and future network conditions. Developing an asset management program such as					lluti	ion – no signi	ficant im	pacts	are expected		
 Developing an 	Transport Planning Road/Bridge Railway Aviation Port/Maritime Key Areas anning and coordination ransport infrastructure development ransport service and industry development ransport pricing and resource allocation stitutional and regulatory development restriction and regulatory develop			ch as HDM-4.	4) En	viro	nmental Imp	act Asses	ssmen	t (EIA) – no need	d	
	Roadway Cer GeoSí (state of the Revolutional Cource of finance											
16. Relevant proje	ect(s)											
• Project "Andar	iego Vial" (Completion date	202	21)								



Andariego Application

Andariego mobile application references the cartography of all of Cuba. It allows users to access a locator program that provides, among others, the distance between Havana and all the municipalities within the country. In addition, it is to find the requested health centers, accommodation, shops, bus stops, travel agencies, and other information.



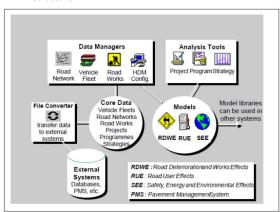
Andariego Vial is being tested and deployed by the CNV, the Provincial Road Centers (CPV), the National Road Safety

Commission (CNSV), and the DGTH, and its primary function is to facilitate in real time all actions carried out on the road either for conservation or investments, to immediately update accidents, vulnerable areas, interrupting roads and alternate roads in case of accidents or any eventual event. It is a system intended to be updated automatically through coordinates and an intelligent cell phone that uploads the changes or actions carried out on the road. We emphasize that we are just in the testing phase, deployment, and updating inventory data.

Source: http://www.cubadebate.cu/noticias/2015/01/30/descargue-en-su-movil-el-andariego-un-servicio-de-localizacion-para-cuba/

HDM-4 is an application for analyzing the economic viability of investments in road projects. The application was completed with models for traffic congestion effects, cold climate effects, a wider range of pavement types and structures, road safety, and environmental effects, including energy consumption, traffic noise, and vehicle emission. This software is helpful in looking the highway management as a whole system. In addition, the application is designed to make comparative cost estimates and economic analyses of different investment options by inputting several data such as detailed specifications of investment programs, design standards, maintenance alternatives, unit costs, projected traffic volumes, and environmental conditions

HDM-4 structure



Source: Overview of HDM-4 Volume 1.0

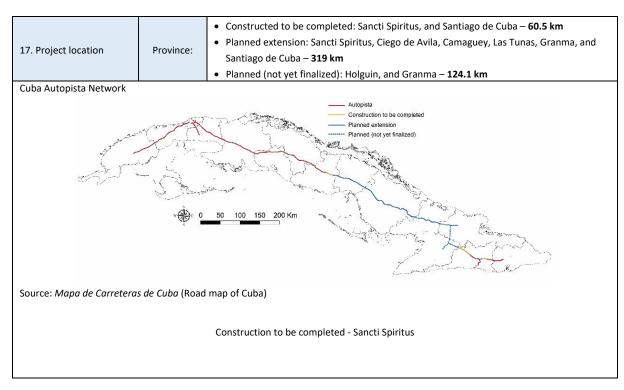
1. Project Code	RB002	2. Project Title	Integral Development of Roads of National Interest 2020 – 2030

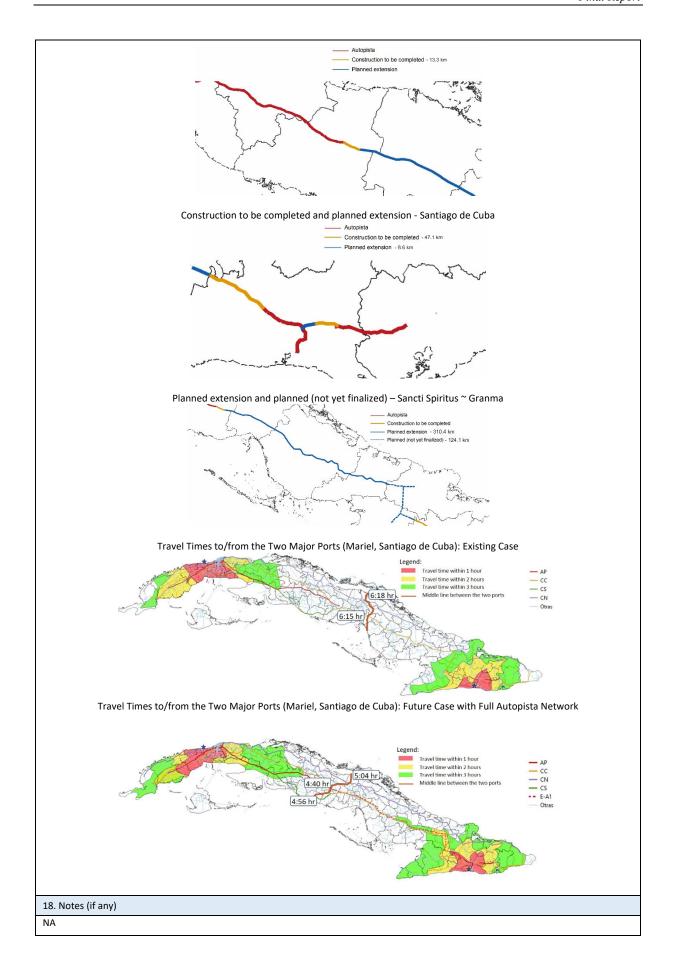
3. Implementation Agency	MITRANS	4. Implementation period					
5. Project cost (budget)	30 billion CUP (1.2 billion USD)	30 billion CUP (1.2 billion USD)			25	End	2030
6. Source of finance	State budget		financing agend	ies	⊠ Fo	reign Investors	

	☐ Transport Planning	☐ Logistics/Cargo			Immediate
	⊠ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7 Contar	☐ Railway	☐ Environment	8. Project	\boxtimes	Short-term
7. Sector	☐ Aviation	☑ Institution/Regulation	Priority		(2024 – 2026)
	☐ Port/Maritime	☑ Relevant business and others		\boxtimes	Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.2, 1.3	1.2.1, 1.2.2, 1.2.3	1.2.1.1, 1.2.2.1, 1.2.3.1
2. Transport infrastructure development	2.1 ~ 2.6	2.1.1 ~ 2.6.1	
3. Environment, safety, and security	3.1, 3.2	3.1.1., 3.2.1	
4. Transport service and industry development	4.1	4.1.1, 4.1.2	
5. Transport pricing and resource allocation	5.1, 5.2	5.2.1	
6. Institutional and regulatory development	6.1	6.1.1, 6.1.2	

12. Purpose of the project	13. Expected Benefits/Outcomes
 Streamlining traffic in developed areas Improving the distribution of goods and services to support 	Increased regional development and economic improvement Improving mobility and accessibility of people and goods
economic activities	Saving vehicle operating costs and time
14. Project Description	15. Social-environmental consideration
 To develop new roads (Autopista) to support mobility for people and goods within Cuba within 2020 – 2030 within Integral Development Plan Roads of National Interest. 	 Social impacts – positive impacts are expected Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected
16. Relevant project(s)	4) Environmental Impact Assessment (EIA)
•	

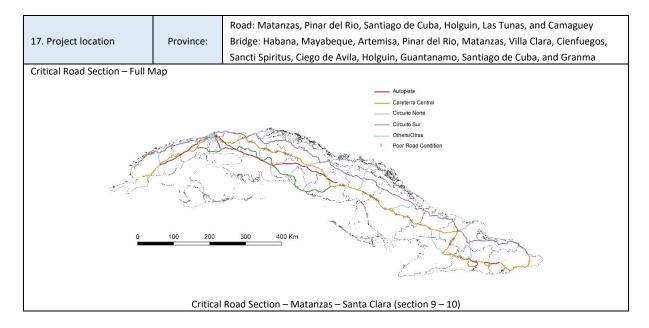


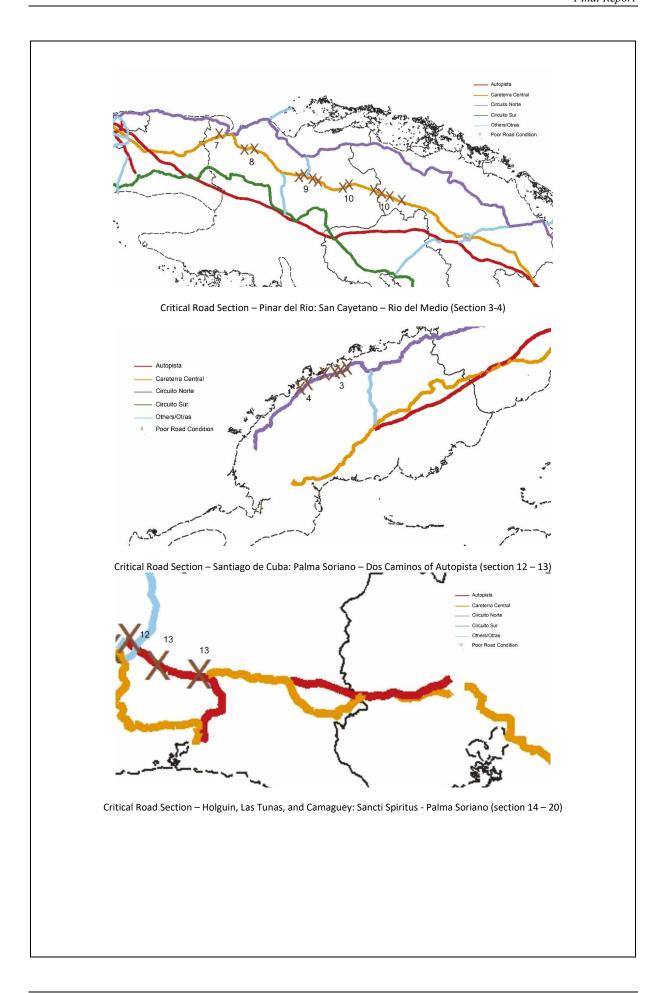


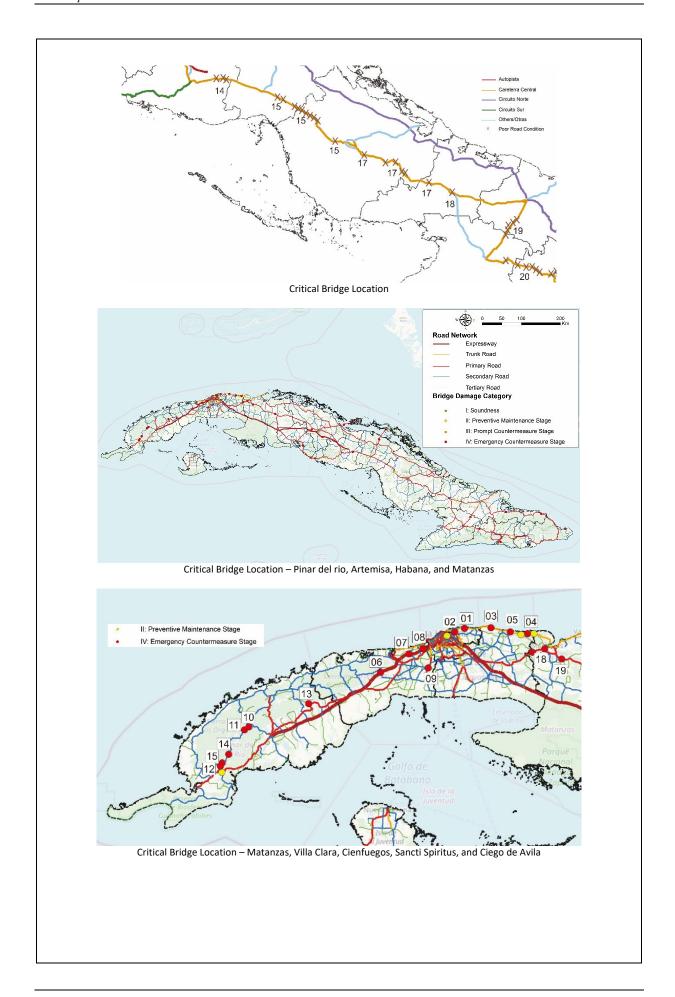
1. Project Code	RB003	2. Proje	ect Title	Immedia	ate Action Pla	n for	Critical Ro	ad and Br	idge S	Sections	
3. Implementation	ds Center (Iters (CPV),	,,		4.	Implement	ation per	iod				
5. Project cost (budget) 2,559 million			CUP (102.4	4 million l	JSD)		Start	202	3	End	2026
6. Source of finance	6. Source of finance		get	☐ External financing agencies ☐ Foreign Investors							
	☐ Trans	port Planning	☐ Logis	☐ Logistics/Cargo					\boxtimes	Immediate	
	⊠ Road	/Bridge	☐ Bus p	oassenger	transport					(2022 – 2023)	
7 Sector	☐ Railw	ay	⊠ Envi	ronment			8. Project		\boxtimes	☑ Short-term	
7. Sector	7. Sector		Insti	tution/Re	gulation		Priority			(2024 – 2026)	
☐ Port/Maritime		Rele	Relevant business and others					Medium-term			
	_ rory martaine									(2027 – 2030)	
	•	•	•								•

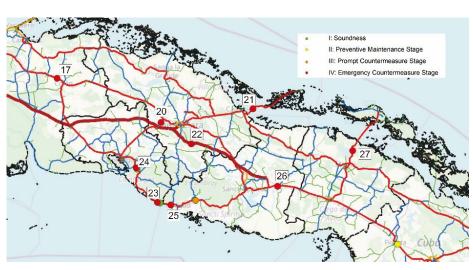
Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.1, 2.2	2.1.1, 2.1.2, 2.2.1	2.1.1.1, 2.1.2.1, 2.2.1.1
3. Environment, safety, and security	3.1, 3.2	3.1.1., 3.2.1	3.1.1.1, 3.1.2.1, 3.2.1.1
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
To maintain a safe, convenient, and stable road transport network.	 Savings in Travel Time Cost (TTC) and Vehicle Operating Cost (VOC) (time-saving by using smooth roads and removing bottlenecks. Savings in (capital and) operational expenses Reduction of traffic accidents Reduction of pollution (environment)
14. Project Description	15. Social-environmental consideration
To rehabilitate roads and bridges that are in critical condition.	Social impacts – positive impacts are expected Natural Environment – no significant impacts are expected
16. Relevant project(s) ●	Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – depending on the size and location











List of Critical Road Section

No.	Section (Road)	Province	Length (km)
1	Matanzas – Santa Clara of Carretera Central (Section 9 - 10)	Matanzas	58.2
2	San Cayetano – Rio del Medio of Circuito Norte Western Side (Section 3 - 4)	Pinar Del Rio	16.7
3	Palma Soriano – Dos Caminos of Autopista (Section 12 - 13)	Santiago de Cuba	9.2
4	Sancti Spiritus - Palma Soriano of CC (Section 14 - 20)	Holguin, Las Tunas, Camaguey	112.3

List	of 33 Critical Bridges											
			Length	Type of	Road	Tourism		HV	Co	ost	Type of	Priority
No.	Section (Bridge)	Province	(m)	Road	Function	Route	AADT	Ratio	mil. USD	mil. CUP	bridge	Group
1	Puente sobre el Rio Tarara	Habana	210.0	Circuito Norte	Trunk Road	Yes	13,462	23%	6.48	162.1	beam bridge	1
2	Monumental sobre Via Blanca	Habana	78.3	Circuito Norte	Trunk Road	Yes	7,313	23%	2.42	60.4	beam bridge	1
3	Puente sobre el Rio Boca de Jaruco	Mayabeque	254.0	Circuito Norte	Trunk Road	Yes	4,763	23%	7.84	196.1	beam bridge	1
4	Puente sobre el Rio Puerto Escondido	Mayabeque	185.0	Circuito Norte	Trunk Road	Yes	3,604	34%	5.71	142.8	beam bridge	1
5	Puente sobre el Rio Jibacoa	Mayabeque	554.0	Circuito Norte	Trunk Road	Yes	4,315	34%	17.11	427.7	beam bridge	1
6	Puente Intereambio de Cayajabo	Artemisa	34.0	Autopista	Expressway	Yes	2,393	23%	1.05	26.2	beam bridge	3
7	Puente Aliviadero Presa La Coronela	Artemisa	45.0	Autopista	Expressway	Yes	4,310	23%	1.39	34.7	beam bridge	3
8	Puente Aliviadero Presa Maurin	Artemisa	107.0	Autopista	Expressway	Yes	N/A	23%	3.30	82.6	beam bridge	2
9	Puente sobre Ferrocarnl San Antonio de los Banos	Artemisa	40.0	Others	Primary	No	6,953	18%	1.24	30.9	beam bridge	4
10	Puente de Cabeza	Pinar del Rio	31.3	Others	Secondary	No	348	N/A	0.33	8.3	truss bridge	5
11	Puente de La Cruz	Pinar del Rio	31.3	Others	Secondary	No	348	N/A	0.33	8.3	truss bridge	5
12	Puente Arenales	Pinar del Rio	31.3	Others	Secondary	No	1,464	N/A	0.33	8.3	truss bridge	5
13	Puente La Guira	Pinar del Rio	31.3	Others	Tertiary	No	N/A	N/A	0.33	8.3	truss bridge	5
14	Puente Teneria	Pinar del Rio	178.5	Others	Secondary	No	169	N/A	1.90	47.5	truss bridge	5
15	Puente Metalico sobre el Cuyaguateje	Pinar del Rio	63.4	Others	Secondary	No	749	N/A	0.67	16.9	truss bridge	5
16	Puente de Cajones sobre el Rio San Juan	Matanzas	85.0	Carretera Central	Primary	No	2,590	39%	2.62	65.6	beam bridge	4
17	Puente Elevado La Jaiba	Matanzas	75.0	Carretera Central	Primary	No	4,413	16%	2.32	57.9	beam bridge	4
18	Puente Metalico San Agustin de la Carretera Centra	Matanzas	36.0	Carretera Central	Primary	No	1,892	39%	0.38	9.6	truss bridge	4
19	Puente Metalico Caninar Carretera Central	Matanzas	103.0	Carretera Central	Primary	No	5,349	39%	1.10	27.4	truss bridge	2
20	Puente Metalico sobre el Rio Sagua La Grante Km265	Villa Clara	61.5	Carretera Central	Primary	No	1,227	16%	0.65	16.4	truss bridge	4
21	Puente 5 del Pedraplen a Cayo Santa Maria	Villa Clara	65.6	Others	Primary	Yes	N/A	N/A	2.03	50.6	beam bridge	3
22	Puente de la Autopista sobre el Rio Agabama	Villa Clara	61.0	Autopista	Expressway	Yes	3,586	28%	1.88	47.1	beam bridge	3
23	Puente sobre Rio Hondo	Cienfuegos	336.0	Circuito Sur	Primary	Yes	N/A	14%	10.38	259.4	beam bridge	2
24	Puente de Amarilla	Cienfuegos	12.0	Circuito Sur	Primary	Yes	1,834	14%	0.37	9.3	beam bridge	3
25	Puente sobre Rio Canas	Sancti Spiritus	64.0	Circuito Sur	Primary	Yes	731	14%	1.98	49.4	beam bridge	3
26	Puente sobre el Rio Jatibanico	Sancti Spiritus	76.6	Carretera Central	Primary	Yes	2,660	48%	0.81	20.4	truss bridge	3
27	Puento Largo de Guillermo	Ciego de Avila	300.0	Others	Primary	Yes	749	N/A	9.26	231.6	beam bridge	3

28	Puente sobre el Rio Mayari	Holguin	170.0	Circuito Norte	Primary	Yes	N/A	31%	5.25	131.2	beam bridge	3
29	Puente de Punta Gorda	Holguin	120.0	Circuito Norte	Primary	Yes	N/A	30%	3.71	92.6	beam bridge	3
30	Puente sobre el Rio Yumuri	Guantanam o	125.0	Others	Secondary	No	N/A	N/A	3.86	96.5	beam bridge	5
31	Puente de San Juan	Santiago de Cuba	100.0	Autopista (Vial)	Primary	No	8,623	N/A	3.09	77.2	beam bridge	2
32	Puente Mecrio	Santiago de Cuba	52.0	Carretera Central	Primary	Yes	2,716	24%	0.55	13.8	truss bridge	3
33	Puente Metalico sobre el Rio Cauto	Granma	157.8	Carretera Central	Primary	Yes	1,756	24%	1.68	42.0	truss bridge	2
Prior	ity 1								39.56	989.1		1
Prior	ity 2								19.54	488.5		2
Prior	Priority 3											3
Prior	ity 4		7.21	180.3		4						
Prior	ity 5		7.76	194.1		5						
Tota	l		102.3 6	2,559								

AADT: Average Annual Daily Traffic

HV ratio: heavy vehicle ratio

Construction priorities:

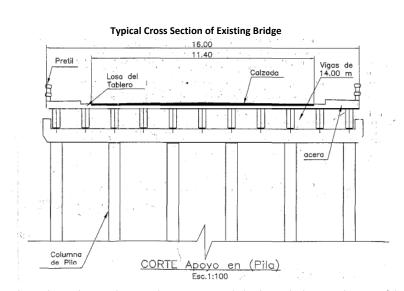
Considering Cuba's budget limitations, time, and resources, bridge reconstruction is divided into 5 phases. The phases are based on the level of urgency, as described below:

- Priority 1: Located along Circuite Norte (Via Blanca) that connects to Varadero, the most famous tourism spot in Cuba. Moreover, these bridges are located near Havana
- Priority 2: Bridges of over 100m in length on the corridor connecting Havana and Santiago de Cuba, which is considered to be the most important corridor for Cuba
- Priority 3: Bridges on the tourism route
- Priority 4: Bridges on the expressway or primary road
- Priority 5: The remaining bridges

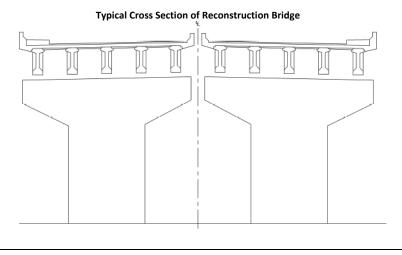
Detail of First Phase Bridges for Reconstruction.

No.	Bridge Name	Bridge Length (m)	Bridge Width (m)	Superstructure Type
1	Puente sobre el Rio Tarara	210	16	RC Girder
2	Monumental sobre Via Blanca	78.3	10	RC Girder
5	Puente sobre el Rio Boca de Jaruco	254	16.8	RC Girder
7	Puente sobre el Rio Puerto Escondido	185	16	RC Girder
8	Puente sobre el Rio Jibacoa	554	16.8	RC Girder

Bridges no. 1, 2, 5, 7, and 8 are located along Circuite Norte on the seaside (Via Blanca) near Havana, which connects to Varadero, one of the most famous tourist spots in Cuba. Since these five bridges have an essential role in connection, reconstruction of these bridges is highly recommended and selected as phase one. The second phase is five bridges with classification over 100 m in length on the route connecting Havana and Santiago de Cuba, which is considered the most important for Cuba. The third phase is eleven bridges located on the tourism route. The fourth phase is five bridges located on the expressway or primary road. Finally, the fifth phase is the seven remaining bridges. Currently, these bridges have a typical cross-section, as seen below figure.



The first phase bridges are located near the seaside; PC Bridge is recommended to be applied in consideration of the difficulty of maintenance work for the steel girder type. The superstructure type of existing bridges is an RC girder; the span length is 14m. Thus, a 30~35m span length of PC-I Girder type is applicable. A typical cross-section construction can be seen below figure.



	ı				1								
1. Project Code	RB004		2. Projec	t Title	Procuren	nent of Ro	ad Ma	intenance M	achines	and Ed	quipment		
3. Implementation	Agency		stry of Tra				4	. Implementa	tion per	iod			
5. Project cost (bu	dget)	380 r	million CU	P (15 mi	llion USD)			Start	202	3	End	2026	
6. Source of finance	e	⊠ St	ate budge	t		⊠ Exteri	al fin	ancing agenc	es	□Fo	reign Investors		
7. Sector	☐ Trans ☐ Road ☐ Railw ☐ Aviat ☐ Port/	/Bridge ray ion	9	☐ Bus☐ Env	istics/Cargo passenger ironment titution/Re evant busir	transport gulation	:hers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2	2030)	
											(2027 – 2	2030)	
	Key Areas	,		9. (Objective (code)		10. Strategy	(code)		11. Goal (cod	e)	
1. Planning and co	ordination	1			,	•		<u> </u>	<u> </u>		,	•	
2. Transport infras	Transport infrastructure development							2.2.1			2.2.1.1		
3. Environment, sa	fety, and	securit	у										
4. Transport service	e and indu	ustry de	evelopme	nt									
5. Transport pricin	Transport pricing and resource allocation												
6. Institutional and	5. Institutional and regulatory development												
12. Purpose of the	project					13.	13. Expected Benefits/Outcomes						
Guantánamo) • To provide the rof the eastern penvironmental i	rovinces v	while m	inimizing	negative	2	ds re • T a • T e	 To increase passenger and cargo transportation services by reducing cost and time of operation. To increase road safety with the consequent decrease in accidents. To develop the main road network of the eastern region with essential structuring and interconnection that allows greater efficiency and effectiveness in the use of means of transport. 						
14. Project Descrip	tion					15.	Social-	environment	al consi	deratio	on		
 To increase the within Las Tuna Guantánamo. To provide equi recycler, earthw 16. Relevant proje 	s, Holguín pment for vork, and p	, Grann road ir	na, Santia mproveme	go de Cu ent for s	ba, and	2)	access roads between the cities, are expected. 2) Natural Environment – no impacts are expected 3) Pollution – pollution reduction by gas emission and gas durir earthworks are expected						
• RB003													
17. Project locatio	n P	rovince	e: Las	Γunas, Η	olguín, Gra	ınma, Sant	iago d	le Cuba and G	Guantán	amo			



List of requested equipment:

- Pavement recycling work
 - Soil stabilizer, cement spreader, emulsion tank, tractor truck, thermal tank semi trailer for asphalt, compactor, grader, water tank, liquid asphalt sprinkler, and emulsion plant.
- 2. Support equipment for pavement recycling works
 - Soil test laboratory, a workshop for truck mechanics, truck lubrication plant, fuel truck, water tank with pump, platform truck, tractor, and low semitrailer.
- 3. Earthwork machines
 - Bulldozers, front loader, grader, compactor, a workshop for truck mechanics, water tank, and platform truck.
- 4. Equipment for asphalt pavement
 - Mobile asphalt plant, compactor, front loader, liquid asphalt sprinkler, water tank, dump truck, thermal tank semi-trailer for asphalt, semitrailer, multipurpose sweeping roller, concrete and asphalt plate cutting machine, a workshop for truck mechanics, and truck.

MITRANS initially requested the list in Table 1 in 2016. The equipment types in the list were mainly gathered for the asphalt pavement works. However, because of their high versatility, many types overlap, such as bulldozers, motor graders, dump trucks, etc. Thus, this equipment should be the core of the optimized component.

Table 1 List of Heavy Equipment (requested by MITRANS)

		ltem		Amo	ount
Category	No.			Unit Price	Total
category		Name of item	Quantity	USD	USD
				(thousand)	(thousand)
Principal	1	Road stabilizer	1	708.4	708.4
equipment for pavement	2	Cement Spreader	1	91.8	91.8
recycling work	3	Emulsion tanker (self-propelled)	1	121.2	121.2
	4	Tractor truck	4	66.7	266.8
	5.	Asphalt thermal tank on a semi- trailer	2	55	110
	6	Cement silo on a semi-trailer	2	45	90
	7	Tamping roller (vibratory type)	1	150	150
	8	Vibratory compactor (combined type)	1	99.8	99.8
	9	Motor grader	1	166.7	166.7
	10	Vibratory compactor (tandem type)	1	141.7	141.7
	11	Water tanker truck (with pump)	1	63.7	63.7
	12	Asphalt distributor	1	104.2	104.2
	13	Emulsion plant	1	215	215
		SUBTOTAL	18		2,329.30
Support	14	Laboratory of soil testing	1	50	50
equipment for pavement	15	Mechanical workshop (truck mounted type)	1	114	114
recycling work	16	Plant for lubricant (truck mounted type)	1	65.4	65.4
. 3	17	Fuel tank (truck mounted type)	1	79.6	79.6

	18	Water tanker truck (with pump)	1	63.7	63.7
	19	Flat body truck with hydraulic crane	1	75	75
	20	Flat body truck	1	49.5	49.5
	21	Tractor truck	1	66.7	66.7
	22	Semi-trailer (low bed)	1	42.3	42.3
		SUBTOTAL	9		606.2
Principal	23	Bulldozer	2	286.6	573.2
equipment for earthworks	24	Bulldozer	1	179.2	179.2
eartiiworks	25	Wheel loader	2	249.7	499.4
	26	Motor grader	2	166.7	333.4
	27	Tamping roller (vibratory type)	2	150	300
	28	Water tanker truck (with pump)	2	65	130
	29	Dump truck	21	72.8	1528.8
	30	Mechanical workshop (truck mounted type)	1	111	111
	31	Flat body truck	1	49.5	49.5
		SUBTOTAL	34		3,704.50
Equipment for	32	Mobile asphalt plant (Discontinue type)	1	850	850
asphalt pavement	33	Asphalt paver	1	333.5	333.5
	34	Vibratory compactor (combined type)	1	99.8	99.8
	35	Vibratory compactor (tandem type)	1	77.5	77.5
	36	Wheel loader	1	249.7	249.7
	37	Asphalt distributor	1	104.2	104.2
	38	Water tank with pump	1	65	65
	39	Dump truck	12	72.8	873.6
	40	Tractor truck	4	66.7	266.8
	41	Asphalt thermal tank on a semi- trailer	3	55	165
	42	Semi-trailer (low bed)	1	42.3	42.3
	43	Multipurpose sweeping roller	1	40	40
	44	Asphalt & concrete cutter	1	15	15
	45	Mechanical workshop (truck mounted type)	1	111	111
	46	Flat body truck	1	49.5	49.5
		SUBTOTAL	31		3,342.90
		TOTAL	92		9,982.90

MITRANS originally listed List No. 1-29 in Table 2 as it was intended to reflect the necessity in Cuba accurately. Furthermore, some equipment with high versatility, but not stated previously in the original list, are added as mentioned in list A1 – A3. Those will boost efficient operation and management in the overall civil work industry.

The price is updated based on these conditions:

- \bullet The equipment price (No. 1 29) is updated by applying the inflation rate in Japan.
- (2016 2019: 2.04% designated by the IMF).
- The equipment price (No. A1 A3) is quoted from researched prices (2019), based on cost estimates of civil work projects in Japan; 20% of the price is added as transportation cost.

Table 2 Equipment Component for the Grant Aid Program (Draft)

	10010 2 29	diprinent component for the drant Ala i rogian	. (2.4.0)			
No.	Type of Equipment	Specification	Quantity	Price	Amount	
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ζ,	thousand USD		
1	Road stabilizer	Work capacity: 1000/1200m2/hr. Containing an automatic system of spraying and cleaning. Air-conditioned cabin for operator.	1	722.9	722.9	
2	Cement Spreader	Cargo capacity: 5.0tons	1	93.7	93.7	
3	Emulsion tanker (self-propelled)	Tank capacity: 10m³	1	123.7	123.7	
4	Tractor truck	6x4 drives. Power: 380-400HP. Cargo capacity: 20tons	9	68.1	612.5	
5.	Asphalt thermal tank on a semitrailer	Tank capacity: 25-30m3. Heating system: Max. 180°C	5	56.1	280.6	

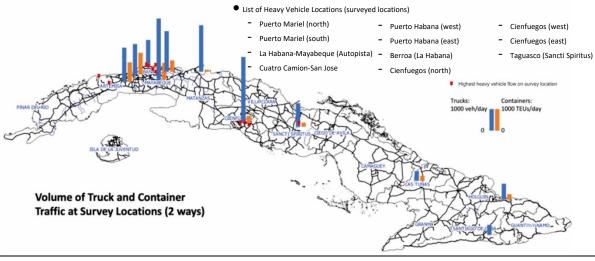
6	Cement silo on a semi-trailer	Capacity: 20-25 tons	2	45.9	91.8
7	Tamping roller (vibratory type)	Weight: 15 tons	3	153.1	459.2
8	Vibratory compactor (combined type)	Weight: 8/10tons. 1 roller & 4 wheels	2	101.8	203.7
9	Motor grader	Power: 130-135Kw	3	170.1	510.3
10	Vibratory compactor (tandem type)	Weight: 10/12tons. 2 vibration rollers	2	144.6	289.2
11	Water tanker truck (with pump)	Tank capacity: 10m3	5	65.0	325.0
12	Asphalt distributor	Cargo capacity: 10m3, 3axes	1	106.3	106.3
13	Emulsion plant	Production capacity: 5tons/hr	1	219.4	219.4
14	Laboratory of soil testing	Contains necessary equipment	1	51.0	51.0
15	Mechanical workshop (truck mounted type)	4x4 drive, containing standard equipment. Hydraulic crane/arm capacity: 10 tons	3	116.3	116.3
16	Plant for lubricant (truck mounted type)	4x4 drives, 6 axles	1	66.7	66.7
17	Fuel tank (truck mounted type)	Tank capacity: 20 tons with pump	1	81.2	81.2
18	Flat body truck with a hydraulic arm	Loading capacity: 15 – 20 tons, hydraulic crane: 10 tons	1	76.5	76.5
19	Flat body truck	Load capacity: 4.1 – 5.0 tons	5	50.5	151.5
20	Semi-trailer (low bed)	Cargo capacity: 55/60 tons. 5 axles	2	43.2	86.3
21	Bulldozer	Power: 22 240 HP	2	292.4	584.9
22	Bulldozer	Power: 150 – 170 HP	1	182.9	182.9
23	Wheel loader	Bucket capacity: 2.5 – 3.0 m3	3	254.8	764.4
24	Dump truck	Load capacity: 17/18 tons (12m3)	33	74.3	2,452.4
25	Mechanical workshop (truck mounted type)	4x4 drive, containing standard hydraulic crane/arm capacity: 10 tons	1	111.0	111.0
26	Asphalt paver	Work capacity: 450 – 500 tons/hr. Pavement width: 3 – 8 m	1	340.3	340.3
27	Asphalt distributor	Cargo capacity: 10 m3, 3 axes	1	106.3	106.3
28	Multipurpose sweeping roller	Power: 80 – 100 HP	1	40.8	40.8
29	Asphalt & concrete cutter		1	15.3	15.3
A1	Excavator	Bucket: 0.6 – 0.8m ³	3	145.1	435.3
A2	Rough terrain crane	Load: 25t	3	260.7	782.1
А3	Erectile generator	50/60kVA	5	26.7	133.5
	TOTAL		103		11,605

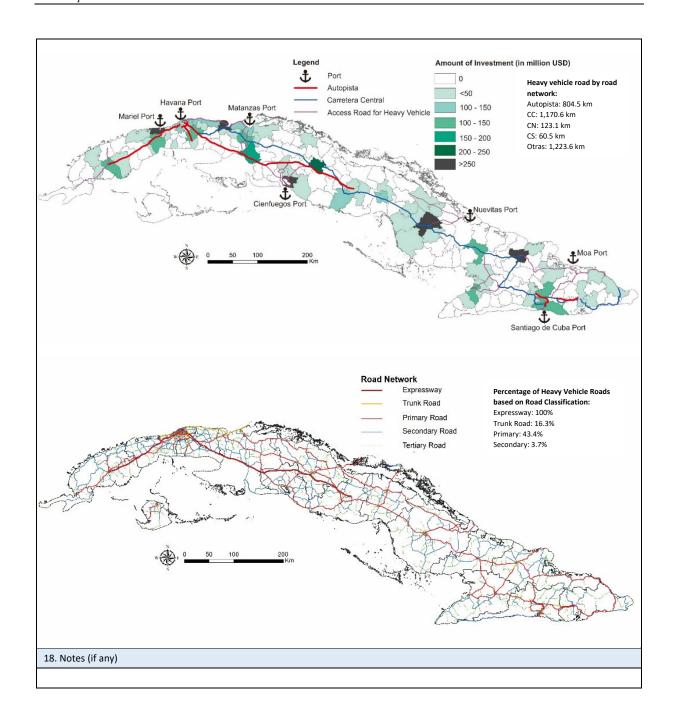
The provision of heavy equipment should consider the spare parts and technical support costs. Therefore, the original list secured approximately 15% of the total equipment for spare parts (2016). However, considering the "lack of spare parts" that has been determined to be one of the most critical issues in Cuba, strengthening this portion is essential. Thus, 20% of the total amount of the equipment is secured in the estimate. In addition, for technical support to install the equipment in Cuba, 10% of the equipment is required.

Table 3 Total Estimated Cost for Requested Equipment with Additional Cost of Grant Aid Program

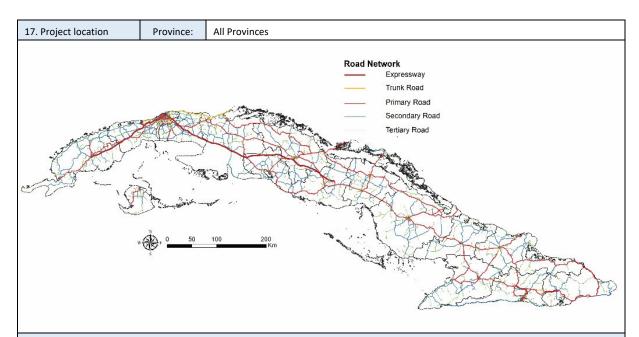
Total Amount		USD 15,086,500		
3. Technical Support	10% of "1"	USD 1,160,500		
2. Spare parts	20% of "1"	USD 2,321,000		
1. Cost of equipment (incld. Transport fee)	Total 103 items	USD 11,605,000		
ible 3 Total Estillated Cost for Requested Equipir	lent with Additional Cost of	Grant Alu Program		

1. Project Code	RB005	2. Proje	ct Title		he Road Netw for Heavy Vel		•		ods)		
3. Implementation	Agency	MITRANS				4.	Implementat	ion per	iod		
5. Project cost (bu	dget)	50 million CUI	(2.0 mill	ion USD)			Start	202	3	End	2025
6. Source of finance	ce	State budg	et		⊠ External	fina	ncing agencie	es	□ Fo	reign Investors	
7. Sector	⊠ Road □ Railw □ Aviat	ay	☐ Bus☐ Envi	ironment itution/Re	transport	rs	8. Project Priority		\boxtimes	Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas		9 (Objective (code)	1	10. Strategy (rode)		11. Goal (code	2)
1. Planning and co	•		3. (Jujective (codej	-	to. Strategy (.oue)		11. Goal (coul	=)
2. Transport infras			2.3	, 2.4, 2.5, 2	2.6	2.2.1 ~ 2.5.1, 2.6.1				2.3.1.1~2.5.1.1, 2.6.1.1	
3. Environment, sa		· ·		· · · · ·			·				
4. Transport servi	e and indu	ustry developme	ent								
5. Transport pricir		5	5.1.2			5.1.2.1					
6. Institutional and	d regulator	ry development									
12. Purpose of the	project				13. Exp	ecte	ed Benefits/C	utcome	es		
• To implement a	n efficient	cargo transpor	tation net	twork in th	e • To in	ncre	ase the mobi	lity of c	argo tr	ansportation se	rvices by
area or provinc	e with a hi	gh volume of he	avy vehic	cles by	redu	cing	g cost and tin	ne of op	eratio	n.	
considering car	go transpo	rtation demand			• To in	To increase road safety with the consequent decrease in					
					accio						
							•			for cargo transp	
							, ,		U	ncentration of in Artemisa, La Hal	
							•			ritus, and Matar	•
14. Project Descri	otion						environmenta		•		
• To improve the	condition	of roads with hi	gh contai	iner traffic	1) Soc	ial i	mpacts – pos	itive im	pacts,	such as improvi	ng safe
volumes that a	e outstand	ding within Auto	pista aro	und the	acc	ess	roads betwee	en the c	ities, a	re expected.	
Havana region	Artemisa	(Mariel Port) – F	lavana –	Mayabequ	-				-	s are expected	
16. Relevant proje	ct(s)				•		-		ion by	gas emission an	d gas duri
● RB002							orks are expe		ceme	+ /EIA\	1
	_ _	rovince: Art	omice I:	Habers *	4) Env Aayabeque, Ci					t (EIA) – no need	ı
Project location											





1. Project Code	RB006		2. Projec	t Title	Cuba ITS	Developme	nt Pl	an				
3. Implementation	Agency				ce, Technolo)	ogy, and	4.	. Implement	ation per	riod		
5. Project cost (but	dget)	75 m	illion CUP	(3.0 m	illion USD)			Start	202	25	End	2027
6. Source of finance	e	⊠ St	ate budge	t		⊠ Externa	l fina	ancing agend	cies	□ Fo	reign Investors	
	<u>- </u>										- 6	
7. Sector	⊠ Trans ⊠ Road □ Railw □ Aviati □ Port/	/Bridge ay on	2	□ Bı □ Er Ir	gistics/Cargons passenger svironment stitution/Re elevant busin	transport	ers	8. Project			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
									, , ,			
Key Areas 9. Objective (co						code)	_	10. Strategy	(code)		11. Goal (cod	
Planning and coordination							_	1.1.1, 1.5.1			1.1.1.1, 1.5.1	1
3. Environment, sa					.1, 3.4			3.1.2, 3.4.1	3.1.2.1, 3.4.1	1		
4. Transport service	•				.1, 3.4			4.1.2			4.1.2.1	1
5. Transport pricing												
6. Institutional and												
				,							•	
12. Purpose of the	project					13. Ex	pect	ed Benefits/	Outcom/	es		
To improve the mobility of people and goods. To increase safety, reduce traffic congestion, and manage incidents effectively. To provide various information and communication technologies to all mode's passenger and freight transport To identify appropriate transport sector policies (demand management or public transport priority measures)						QuiImpImpaccMirconEnsancAvatha	ckly prove ay prove iden imiz tribu urin I sus illabi t allo	e air quality e safety by p t situation te the impac ute to an acc g the road n tainable ility of trave bow road use	ents and by reductorized and a providing at of environments cident etwork of linforma rs to make	appro ing pol a warr ronmer perate tion the	ngestion priately respon lution by minim ning before a po ntal and human as in the most ef rough system a uformed decisio	etential factors that fficient, safe, pplications n on their
14. Project Descrip	tion					15. So	cial-	environmen	tal consi	deratio	n	
14. Project Description To promote research and development (R&D) in the ITS field, which aims to provide innovative services relating to different modes of transport and traffic management. 16. Relevant project(s)					, 1) So at 2) Na 3) Po	Social impacts – positive impacts are expected Natural Environment – positive impacts are expected Pollution – positive impacts are expected						
● RB012												



The Early Years of ITS

The early years of ITS were championed by a handful of countries – including the United States, Canada, many European countries, Japan and Australia. In the USA, for example, several transport reauthorization bills – from the 1991 Intermodal Surface Transportation Efficiency Act (or ISTEA) onwards, encouraged the deployment of ITS and the search for advanced technology applications in transport. Many Field Operational Tests (FOT) were also undertaken – designed to test the feasibility of implementing the technology-based solutions, as well as provide information on their likely costs and benefits

ITS Nowadays

Recent years have witnessed a renewed and increased interest in connected and autonomous (self-driving) vehicles — which can be regarded as the latest phase in the evolution of ITS. Third and fourth-generation digital mobile telecommunications have enabled higher levels of connectivity between vehicles and the infrastructure, coupled with greater vehicle automation. This may radically change the way that motor vehicles are driven and the way that road traffic is managed.

The principal applications of ITS – that contribute to road network operations are:

- Traffic and road network management
- Traveler information systems
- Public transport systems
- Commercial vehicle applications
- Vehicle safety applications
- Maintenance and construction management applications
- Emergency management
- Archived data management

Traffic Control Center - Traffic and road network management



Source:

http://www.colosseoeas.com/en/news/Colosseo-proven-Single-Media-Platform-technology-controls-new-Traffic-Control-Center-in-Istanbul.html

Mobile Route Planner – Travel information systems



Source: https://ridewithgps.com/help/route-planner

Contactless Payment Technology (Smart Card in Use for Transit in Finland) – Public Transport System



Source

https://en.wikipedia.org/wiki/File:Matkakortti_ja_kortinluki

Camera-based ITS solution for automated detection - Vehicle safety applications



Source: https://rno-its.piarc.org/en/network-operations-its-road-safety/policing-enforcement

Emergency response through CCTV – Emergency Management

Contactless Payment Technology (Smart Card in Use for Transit in Public Transport Application - Commercial vehicle applications



Source: https://www.uplabs.com/posts/public-transport-app-design-ui-ux-kits

Road weather information system - Maintenance and construction management applications



Source: https://commons.wikimedia.org/wiki/File:2012-06-26

Data management through Geographic Information Systems technology - Archived data management

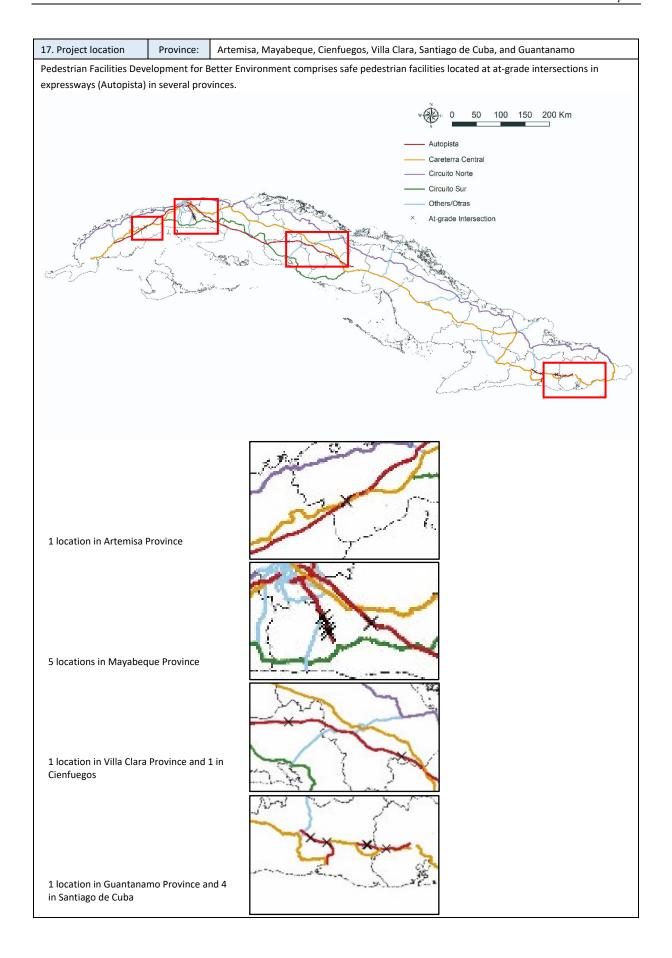


Source: https://www.pcb.its.dot.gov/eprimer/module8.aspx



Source: https://apps.apple.com/us/app/gis-kit/id429688355

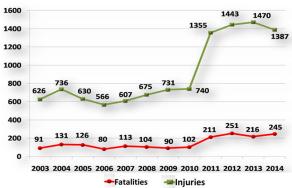
1. Project Code	RB007	ı	2. Pro	ject Title	Pede	estrian Facilit	y De	evelopment	Plan & Co	onstruc	ction for Better I	Environment
		Г										
3. Implementation	Agency	MITRAN	IS, CNV				4.	. Implement	ation per	iod		
5. Project cost (bud	lget)	125 mill	ion CUI	P (5.0 millior	n USD)		Start 2023				End	2028
6. Source of finance	9	⊠ State	budge	t	☑ External financing agencies ☐ Foreign Investors							
	⊠ Tran	sport Plan	ning	☐ Logistic	l Logistics/Cargo						Immediate	
	⊠ Road	l/Bridge		☐ Bus pas	senger	transport					(2022 – 2023)	
7. Sector	☐ Railw	ay		⊠ Environ	ment			8. Project		\boxtimes	Short-term	
7. Sector	☐ Aviation Institution/Reg				gulation		Priority			(2024 – 2026)		
	☐ Port/	Maritime		Relevar	nt busi	ness and oth	ers			\boxtimes	Medium-term	
											(2027 – 2030)	
											T	
Key Areas 9. Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)
1. Planning and coordination												
2. Transport infrast												
3. Environment, sa	fety, and	security		3.1, 3.2	2, 3.4		3.1.1, 3.1.2, 3.2.1, 3.4.1			4.1	3.1.1.1., 3.1.2	2.1, 3.2.1.1
4. Transport service	e and ind	ustry deve	lopme	nt								
5. Transport pricing	g and reso	ource alloc	cation									
6. Institutional and	regulato	ry develop	ment									
12. Purpose of the	project					13. Ex	pect	ed Benefits/	Outcome	es		
 To contribute to 	safety ar	nd comfort	t on the	e road		• Est	ablis	hment of pe	destrian	faciliti	es in the form o	f safe
 To support smooth 	oth traffic	flow by ir	mprovir	ng the safety	of	cro	ssing	g facilities or	overpas	ses.		
driving						• Inc	rease	e road safety	with the	e conse	equent decrease	in
						acc	iden	ts.				
14. Project Descrip	14. Project Description						cial-	environmen	tal consid	deratio	on	
• Provide pedestrian facilities in the form of safe crossing						1) So	cial	impacts – po	sitive im	pacts a	are expected, su	ch as more
facilities or overpasses in expressways to separate pedestria					lestria	n, pe	dest	trians can wa	alk safely			
cyclist, and moto	cyclist, and motorized vehicles to give a sense of safety for bot					th 2) Natural Environment – more well-arranged pedestrian paths						trian paths
motorized and n	motorized and non-motorized.					are expected						
16. Relevant projec	t(s)					3) Pollution – no significant impact is expected						
_						4) Er	4) Environmental Impact Assessment (EIA) – no need					



Background

While the number of fatalities and injuries over the past few years is stable, the number of pedestrian traffic fatalities and injuries is upward. According to the latest data from 2014, pedestrian fatalities account for about one-third of the total fatalities in traffic accidents. Therefore, improvement of road safety facilities such as lighting, guard rails, delineators, safety signboards, etc., may increase the safety and comfort of the roads with minimum investment.





The trend in the Number of Traffic Accidents, Fatalities, and Injuries

The trend in the Number of Fatalities and Injuries in Accidents
Involving Pedestrians

The current existence of interchanges and grade separations in Expressway (Autopista) enables cyclists and pedestrians to enter the motorway, which is dangerous for all road users.





At-grade Intersections on the Expressway (Autopista)

Example of Safe Pedestrian Facilities



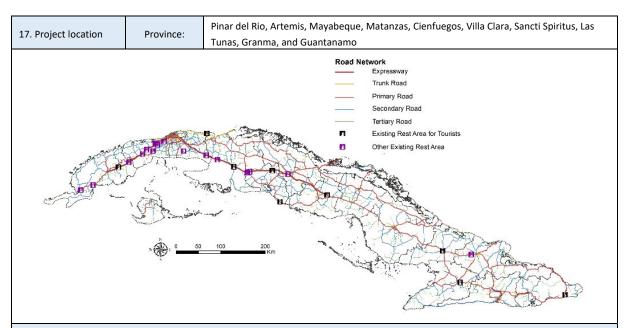
Pedestrian Crossing



Pedestrian Bridge

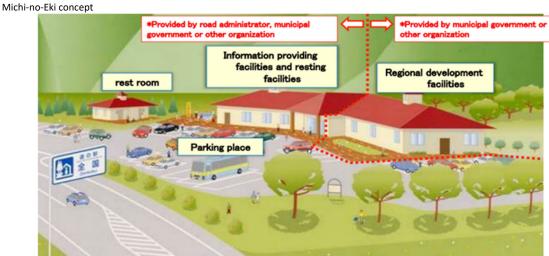
1. Project Code	RB008		2. Projec	t Title	Construc	ction of stop	on of stop & rest road stations (MICHI NO EKI) along main roads						
3. Implementation	Agency	MITRA	ANS				4.	Implement	ation per	iod			
5. Project cost (bud	dget)	1.25 b	illion CUF	(50 mil	llion USD)			Start	202	3	End	2028	
6. Source of financ	e	⊠ Sta	ite budge	t			fina	ncing agend	cies	⊠ Fo	reign Investors		
	☐ Trans	port Pla	anning	☐ Log	istics/Cargo	0					Immediate		
	⊠ Road	/Bridge	!	☐ Bus	passenger	transport	nsport (2022 – 2				(2022 – 2023)		
7 Contor	☐ Railw	ay		☐ Env	ironment			8. Project		\boxtimes	Short-term		
7. Sector	☐ Aviat	ion		⊠Inst	itution/Reg	gulation		Priority			(2024 – 2026)		
	☐ Port/	Maritim	ne	⊠Rele	evant busin	ess and othe	rs			\boxtimes	Medium-term		
											(2027 – 2030)		
	code)		10. Strategy	(code)		11. Goal (cod	e)						
1. Planning and coordination													
Transport infrastructure development 2.5								2.5.2			2.5.2.1		
3. Environment, sa													
4. Transport service	e and indi	ustry de	velopmer	nt 4.1	L, 4.2	4.1.1, 4.1.2, 4.2.1, 4.2				2.2,	4.1.1.1, 4.1.2	.1, 4.2.2.1,	
								4.2.3			4.2.3.1		
5. Transport pricing	g and reso	ource all	location										
6. Institutional and	regulato	ry devel	opment	6.3	3		- (6.3.1			6.3.1.1		
12. Purpose of the	project					13. Ex	13. Expected Benefits/Outcomes						
To promote local	l tourism	and tra	de throug	h local	community	• Pro	vide	business op	portuniti	es to l	ocal communiti	es	
participation						• Imp	rove	economic	activity in	the se	ctor of tourism	and trade	
 To contribute to 	safety ar	d comf	ort on the	road		serv	vice						
To collect and di	isseminat	e traffic	informat	ion to th	ne road use	er 🕒 To i	ncre	ase road sa	fety with	the co	nsequent decre	ase in	
and residents						acci	den	ts					
To support smooth	oth traffic	flow by	/ improvir	ng the sa	afety of	• Red	ucti	on of polluti	on (envir	onmei	nt) through the	provision of	
driving						gree	en ai	rea					
To provide conv	enient pla	ices and	d other qu	ality ser	vices for								
travelers to rest													
14. Project Description						15. So	cial-	environmen	tal consid	deratio	n		
Providing roadsi	Providing roadside facilities adopting Michi-no-Eki in the form						cial i	mpacts – po	sitive im	pacts a	re expected		
of convenient re	of convenient rest areas with other quality services, including					2) Natural Environment – no significant impacts are expected							
media to promo	te local sp	ecialty	product			3) Pollution – no significant impacts are expected							
16. Relevant projec	16. Relevant project(s)							4) Environmental Impact Assessment (EIA) – requires					

•



Michi-no-Eki

Michi no Eki is a public-private partnership concept where the local community/community can play an independent role in its management, especially in suburban and rural areas traversed by highways. The design of Michi no Eki is a rest area that provides a comfortable resting place and other quality services for road users and residents. Michi-no-Eki plays 3 different roles; "a place for resting" for road users, "a place to provide information" for both road users and locals, and "a place to facilitate local communications".



Source MLIT, translated by JST

In Japan, the government provides conditions for the construction of Michi no Eki, including:

- The location is on the edge of the highway and easily accessible by road use
- The services include parking lots, toilets, public telephones, information rooms
- Free parking areas, clean toilets, and information rooms provide information on traffic, local communities, and supporting facilities such as restaurants, mini markets, and others.
- The local government or community institution is in charge of the facility's operation $\label{eq:community} % \[\frac{1}{2} \left(\frac{1}{2$
- Easy access for children, adults, parents, and people with disabilities and attention to the local spatial plan.

Michi no Eki resting facilities



Tollets are in operation 24 hours a day. Clean, convenient tollets Restaurants serving local specialties





Various road users, such as those in passenger cars and heavy trucks, can stop by easily.

Michi no Eki facilities for information





Roadmaps featuring nearby facilities are provided, as are real-time Information provision by means of local information magazines images of road conditions.



An example of a tourist information center operated by a tourist association at a Michi-no-Eki (https://www.hakobura.jp/db/db-shopping/2016/02/post-86.html)

Michi no Eki Facilities for Regional Development



A space for meetings to pursue local activities



Agricultural products harvested in the early morning are sold the same day.



Road users purchase local products, thereby invigorating the local

Source: Handbook on Michi-no-Eki for International cooperation

Example of Michi No Eki in Japan

Michi-no-Eki Fujiyoshida



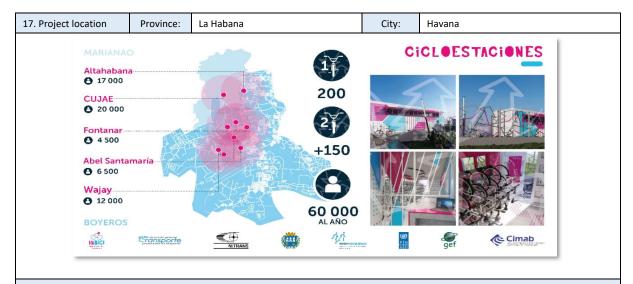


Michi-no-Eki Katsuyama

Source: https://www.mt-fuji.gr.jp/en/michi-no-eki/

The World Bank adopted the concept and name of "Michinoeki" to provide similar facilities in developing countries. The World Bank published detailed guidelines, and pilot studies were done in China and Kenya, followed by many projects in Asia and Africa. In Japan, JICA Hokkaido Center has performed training for eight countries in Central Asia and the Caucasus area from 2013 to 2015. In addition, in 2017, Michi-no-Eki training was done for seven countries in Central America and the Caribbean Sea. As of 2018, Japan had 1,145 Michino-Eki, which is still growing.

RB009		2. Projec	t Title Neo-mobility Project										
3. Implementation Agency General Directorate of Transportation							4	. Implement	ation p	eriod			
								Start	20	10	End	2023	
				4 1111111011 030	i	rtornal fi	21					2023	
.e	△ 31	ate budge	ι		△ EX	ternariii	IIdi	ncing agenci	es	□ F0	reign investors		
☐ Road/Bridge ☐ Railway ☐			□ B ⊠ E	us passenger invironment nstitution/Re	transp gulatio	n	8. Project Priority				(2022 – 2023) Short-term (2024 – 2026)		
•				9. Objective ((code)		1	LO. Strategy	(code)		11. Goal (cod	e)	
		mont											
			+	3334			7	231341			22112411		
		•		3.3, 3.4			_	5.5.1, 5.4.1			3.3.1.1, 3.4.1		
	•												
Institutional and regulatory development													
12. Purpose of the project						13. Expe	cte	ed Benefits/C	Outcom	es			
transportation system in the city of Havana To provide multiple benefits - locally and globally - through integrating urban transportation, physical planning, and urban mobility.						for sustainable public transport that promotes sustainable mobility and a more resilient urban environment. Improve the public transport system through a Public Bicycle System (PBS) and Transit-Oriented Development (TOD) measures. Development of innovative pilot interventions related to investments for low-carbon urban transport validated. Creating systematic monitoring of project indicators and reviewing ongoing activities to ensure successful project implementation.							
otion					1				al consi	deratio	n		
nt of a low ough: public biccles butes with a Fontanar ented deven, intellige nament threelectric caracity build of Transport studies an equipmen ct(s)	ycle sy 25 ele , Abel S relopment traff ough ta ar, which ding for cortation	ectric tricyc Santamaria ent measu fic light sys actical urb ch is purch r the Cente on (Cimab) itor emissi	cles that a, and ares: under the m, in an plate ased I er for to call ons fr	eycle stations nat will provid I Wajay areas Irban inter- Improvement Inning, bicycle by the project Environment rry out traffic rom mobile	t 1 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1) Socia and a 2) Natu 3) Pollu	l ir a bo ral tio	mpacts – pos etter lifestyl Environmer n – pollution	sitive im e due to nt – no i n reduct	pacts so cycling mpacts	such as access in g are expected. s are expected gas emission		
	Key Areas ordination tructure d fety, and read regulator project implement system in t ciple benefit an transpo otion nt of a low ough: public bic cles outes with reference with reference to the contract of the contract o	Agency General Havard dget) 435 in the State Sta	Agency General Director Havana Province dget) 435 million CUI See State budge Transport Planning Road/Bridge Railway Aviation Port/Maritime Key Areas ordination tructure development dregulatory development d	Agency General Directorate Havana Province (DC dget) 435 million CUP (17. de State budget Transport Planning	United Nations Development Pro General Directorate of Transports Havana Province (DGTPH) dget) 435 million CUP (17.4 million USC Re State budget Transport Planning	Agency General Directorate of Transportation of Havana Province (DGTPH) dget) 435 million CUP (17.4 million USD) dget) 436 million CUP (17.4 million USD) dget) 436 million CUP (17.4 million USD) dget) 437 million CUP (17.4 million USD) dget) 438 million CUP (17.4 million USD) dget) 438 million CUP (17.4 million USD) dget) 54 million CUP (17.4 million USD) dget) 64 million CUP (17.4 million USD) dget) 65 million CUP (17.4 million USD) dget) 67 million CUP (17.4 million USD) dget) 68 million CUP (17.4 million USD) dget) 69 million CuP (17.4 million USD) dget) 70 million CuP (17.4 million USD) dget) 71 million CuP (17.4 million USD) dget) 71 million CuP (17.4 million USD) dget) 72 million CuP (17.4 million USD) dget) 73 million CuP (17.4 million USD) dget) 74 million CuP (17.4 million USD) dget) 74 million CuP (17.4 million USD) dget) 75 million CuP (17.4 million CuP (United Nations Development Program (UNDP)	United Nations Development Program (UNDP) General Directorate of Transportation of Havana Province (DGTPH) General Directorate of Transport Planning Logistics/Cargo Bus passenger transport General Directorate of Environment Institution/Regulation Institution/Regulation Relevant business and others General Directorate of Transportation General Directorate	Agency United Nations Development Program (UNDP) General Directorate of Transportation of Havana Province (DGTPH) diget) 435 million CUP (17.4 million USD) Start De State budget State Start De State budget Start Start De Start budget Start Start Des Start Des Start Start Des Start Start Des Start Start Des Start Des Start Start Des Sta	Agency United Nations Development Program (UNDP) General Directorate of Transportation of Havana Province (DGTPH) dget) 435 million CUP (17.4 million USD) e State budget	Agency United Nations Development Program (UNDP) General Directorate of Transportation of Havana Province (DGTPH) dget) 435 million CUP (17.4 million USD) Start 2019 e State budget State budget State budget Program (UNDP) a Fransport Planning Start	Agency United Nations Development Program (UNDP) Havana Province (DGTPH) deet) 435 million CUP (17.4 million USD) Start 2019 End deet) 435 million CUP (17.4 million USD) Start 2019 End deet) 35 tate budget © External financing agencies □ Foreign Investors © Transport Planning □ Logistics/Cargo Bus passenger transport S. Project Short-term	



- The implemented action:







Public bicycle

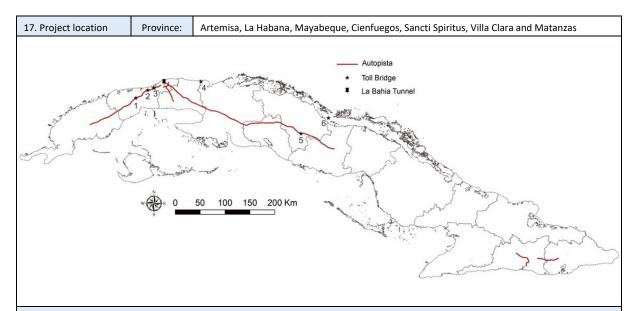
Electric car

Mobile application to monitor emission

- Developed revision and updated regulatory documents on low-emission transport by elaborating four new standards to
 guide Sustainable Urban Mobility. Their respective Standards Committees review the proposed requirements for controlling
 environmental pollution from exhaust gas emissions produced by road transport vehicles and the standard for Public Bicycle
 Systems.
- In addition, the project also aims to produce technical reports on gender and generational gaps, electric vehicles, and bicycles, to support and promote updating some regulations.

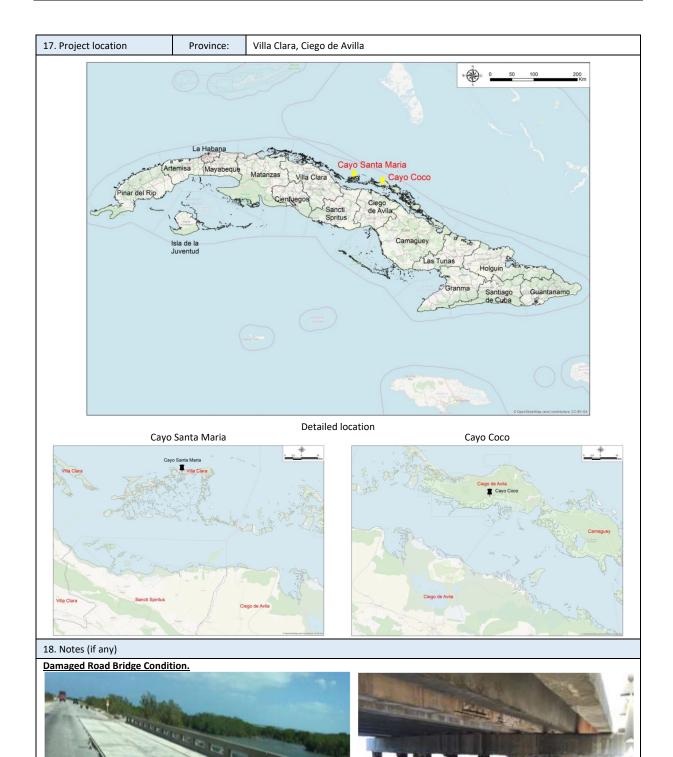
• -

1. Project Code	RB010 2. Project T		t Title		n toll roads, pricing for international cargo transport (containers ole prices for Cubans in new tolls					ers), and		
3. Implementation Agency MITRANS							4. Implementation period					
5. Project cost (but	dget)	-						Start	202	3	End	2025
6. Source of finance	e	⊠ Sta	ate budge	t			l fina	ancing ageno	ies	□Fo	reign Investors	
									ı			
7. Sector Sector Sector Sector Railway Sector			□ Logistics/Cargo □ Bus passenger transport □ Environment ⊠ Institution/Regulation ⊠ Relevant business and other			ers	8. Project			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
Key Areas 9. Objective (coo						code)	10. Strategy (code) 11. Goal (code)				e)	
Planning and coordination Transport infrastructure development 2.4							2.4.1 2.4.1.1					
3. Environment, sa				2.4			2.4.1.1					
				nt 4.1			4.1.1 4.1.1.1					
4. Transport service and industry development 4.1 5. Transport pricing and resource allocation 5.4						5.4.1 5.4.1.1						
6. Institutional and	regulato	y deve	lopment	6.2			6.2.1 6.2.1.1					
12. Purpose of the	project					13. Ex	13. Expected Benefits/Outcomes					
 To develop the PPP scheme that applies and is fit for international cargo transport and new development toll roads in Cuba, including optimizing the private sector capabilities. To prepare and suggest the legal framework for accelerating the implementation of the PPP scheme in road sectors. 						s trainser To pinfr sec Esta	 To establish reasonable toll rates for international cargo transport and national and international visitors with better services to road users. To provide business opportunities for developing road infrastructure, operation, and maintenance involving private sectors. Establish a PPP scheme that separates the government's responsibility and each stakeholder as risk mitigation. 					th better pad ng private nent's
14. Project Description						15. So	15. Social-environmental consideration					
 To analyze several options of PPP schemes, including the advantages and disadvantages of each scheme, by considering several aspects of private sector involvement, type of loans, subsidy, and service payment. To gain support from policymakers, budgeting agencies, and international donors during the study to create a successful implementation. 						g im ro 2) Na 3) Po 4) En	1) Social impacts – positive impacts are expected, such as improvement in users' experiences and safe access to the road between the cities. 2) Natural Environment – no impacts are expected 3) Pollution – no impacts are expected 4) Environmental Impact Assessment (EIA) – stakeholders meeting required to enhance the certainty level of					ss to the
16. Relevant project(s)							stakeholders.					



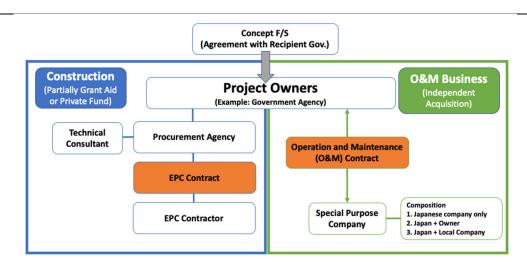
No.	Bridge/Tunnel	Province	Status		
1	Puente Intereambio de Cayajabo	Artemisa	Existing		
2	Puente Aliviadero Presa La Coronela	Artemisa	Existing		
3	Puente Aliviadero Presa Maurin	Artemisa	Existing		
4	Les Elevadas de Via Blanco / varadero	Mayabeque/Matanzas	Existing		
5	Puente de la Autopista sobre el Rio Agabama	Villa Clara	Existing		
6	Puente 5 del Pedraplen a Cayo Santa Maria / santa maria	Villa Clara	Existing		
7	La Bahia Tunnel or Havana Tunnel	Havana	Existing		

1. Project Code	ect Code RB011 2. Project Title					Promoti	tion Pro	jec	t Utilizing G	rant Aid	with B	usiness and Op	perating	
1. Project code	Rights in Cub													
		A1 - 12 -		6	(CN) () (D	* 1								
2 Implementation	Agonov				(CNV)/Prov			1 I	Imploment	ation nor	iod			
3. Implementation Agency Roadway Centers (CPV), ECOING, MICONS), WILL KAINS	•		4. 1	Implementa	ation per	iou			
5. Project cost (bu	daet)		30 million	113					Start	202	6	End	2029	
, ,	<u> </u>										l.			
6. Source of finance	e	⊠ Sta	ate budge	τ		⊠ EXT	ternai fi	nar	ncing agenc	iles	⊠ F0	reign Investors	5	
	□ T	DI			:-+:/C									
		•	_	_	istics/Cargo passenger		ort					Immediate (2022 – 2023)		
	☐ Railw	_	=		ironment	transpt	OIL		8. Project		M	Short-term		
7. Sector	☐ Aviat	•			titution/Re	gulation	n		Priority			(2024 – 2026)		
	□ Port/		ne		levant busii	_		s				Medium-term		
												(2027 – 2030)		
												,		
	Key Areas	5		9.	Objective ((code)		1	0. Strategy	(code)	_	11. Goal (code)		
1. Planning and co	ordination	1		1.3	3			1	.3.1			1.3.1.1		
2. Transport infras	tructure d	levelopi	ment	2.3	1			2	.1.1, 2.1.2			2.1.1.1, 2.1.2.1		
3. Environment, sa	3. Environment, safety, and security													
4. Transport service and industry development			nt 4.:	4.1			4.1.2				4.1.2.1			
5. Transport pricin	g and reso	ource al	location	5.3	5.1, 5.2, 5.3			5.1.1, 5.1.2, 5.1.3, 5.2.1			2.1	5.1.1.1, 5.1.2.1, 5.1.3.1,		
					60.60			604.604				5.2.1.1. 5.3.1		
6. Institutional and	regulato	ry devel	lopment	6.2	2, 6.3	6.2.1, 6.3.1					6.2.1.1, 6.3.1	1.1		
12. Purpose of the	nroiect					1:	3 Fyne	cte	d Renefits/	Outcome	26			
To contribute to		nromot	ion activit	ioc with	in Cayo Say		13. Expected Benefits/Outcomes Improvement of tourist activities within Cayo Santa Maria and							
Maria and Cayo		promot	ion activit	ies with	iiii Cayo Sai	iila	Cayo Coco.							
To repair the da		ructure	of the roa	ad bridg	e. including	g .	• Establishment of a joint venture or consortium to ensure the							
the foundation	_				.,		road bridges are well-managed, especially for maintenance and							
• To consider suit	able cons	truction	method	that app	olies to Cub	oan	operation issues.							
implementation	ability.					•	Gain t	ech	nnology tra	nsfer exp	osure	from private se	ectors	
To improve ope	ration and	d mainte	enance de	etails th	at apply to		throu	gh a	a cooperati	on schen	ne.			
Cuba's existing														
To develop a pr														
construction, pr		nt, and o	operation	and ma	intenance	of								
the road bridge						11	15. Social-environmental consideration							
14. Project Descrip A business that		oc to ac	omotine t	ouric~	in Cuba b									
repairing and m		•	U		•	1 '	Social impacts – positive impacts are expected Natural Environment – no significant impacts are expected							
to Cayo Santa N						l '	Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected							
representative marine resorts, by utilizing grant aid with							4) Environmental Impact Assessment (EIA) – requires							
business and operating rights. Sustainability of improved						'						. , - 4 ****		
bridges condition is also essential to ensure good maintenance						ce								
service and operation.														
• Cayo Santa Maria and Cayo Coco are famous for their beautiful														
resorts in Cuba. It takes 4 – 6 hours to reach these areas by car														
from Havana. There are 44 bridges to Cayo Santa Maria, and 27 of them require structure repair. Similar conditions are found														
-		-		ondition	s are found	t l								
within road brid	_	yo Coco).											
16. Relevant proje	ct(s)													
•														



The Project Implementation Structure

The idea is to create cooperation between agencies in Cuba (e.g., MICONS or MITRANS) and foreign companies (Japanese companies, for example) to implement construction, procurement, maintenance, and operation. After an agreement between Recipient Government, a contract will be established for managing several aspects of engineering, procurement, and construction (EPC) as well as operation and maintenance (O&M). As one of the existing schemes by JICA, its structure of Grant Aid with O&M Scheme is illustrated below:



Example of Japanese Grant Aid with O&M

Detail of EPC and O&M

Detail of EPC – Construction Methodology for Bridge Repairment

Repair or replace damaged foundations and bridge girders using a prefabricated construction method that allows the components to be made off-site in a factory, then transported to be put together on-site to create a structure (bridge).

These methods are considered due to Cuba's construction implementation capacity.

Example of Prefabricated Construction



Hybrid Box Culvert

Water Pipe for Sea Water Exchanger

Detail of Operation & Maintenance (O&M)

Maintaining the repaired bridge and inspecting the other bridges will be operated by a joint venture with a Cuban implementing agency. The period is expected for ten years.

Priority

(2024 – 2026)

☐ Medium-term (2027 – 2030)

1. Project Code	RB012	2. Proje	ct Title	Establishment of Transport Planning Centre of Excellence							
3. Implementation Agency The General Director and Information (Do					· ·	4. Implementation period					
5. Project cost (budget) 75 million CUI			P (3 million USD)			Start	2	2022	End	2025	
6. Source of finance ⊠ State b			ate budget 🗵 External financ					☐ Forei	gn Investors		
	□ Transport Planning		☐ Logistics/Cargo				⊠ Im	nmediate			
	⊠ Road/Bridge		☐ Bus passenger transport					(2	022 – 2023)		
7 Contor	☐ Railway		☐ Environment			8. Project		⊠ Sh	nort-term		
7. Sector	r		✓ Institution/Pogulation			Driority		/2	024 2026)		

□ Institution/Regulation

Relevant business and others

☐ Aviation

☐ Port/Maritime

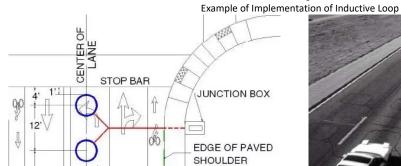
Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.2	1.2.1, 1.2.2, 1.2.3	1.2.1.1, 1.2.2.1, 1.2.3.1
2. Transport infrastructure development	2.3, 2.5, 2.6	2.5.1, 2.5.2, 2.6.1	2.5.1.1, 2.5.2.1, 2.6.1.1
3. Environment, safety, and security	3.1, 3.2, 3.3, 3.4	3.1.1, 3.1.2, 3.2.1, 3.3.1,	3.1.1.1, 3.1.2.1, 3.2.1.1,
		3.4.1	3.3.1.1, 3.4.1.1
4. Transport service and industry development	4.1, 4.2	4.1.1, 4.1.2, 4.2.1~4.2.3	4.1.1.1~4.2.3.1
5. Transport pricing and resource allocation	5.1, 5.2, 5.3	5.1.1, 5.1.2, 5.1.3, 5.2.1	5.1.1.1, 5.1.2.1, 5.1.3.1,
			5.2.1.1. 5.3.1.1
6. Institutional and regulatory development	6.2, 6.3	6.2.1, 6.3.1	6.2.1.1, 6.3.1.1

12. Purpose of the project	13. Expected Benefits/Outcomes
 Establish a central repository for all databases developed during the master plan development. To provide analysis of transport infrastructure based on transport database and model. To provide capacity building for government and private sector in transport planning and management To identify appropriate transport sector policies (demand management or public transport priority measures) 	 Improve traffic flow, air quality, and safety through the appropriate and comprehensive transport planning Ensuring the road network operates efficiently, safely, and sustainably Availably of professional human resources in transport planning and management, through human resource training development
14. Project Description	15. Social-environmental consideration
 To develop a resource center for transport planning dataset and management that enables government and private sector to analyze transport infrastructure and get technical assistance, including capacity building and advisory activities. 	Social impacts – positive impacts are expected Natural Environment – positive impacts are expected by developing appropriate and comprehensive urban transport planning Pollution – positive impacts are expected by developing
16. Relevant project(s)	appropriate and comprehensive urban transport planning
• All projects	4) Environmental Impact Assessment (EIA) – no need



Automatic traffic measure through an inductive loop system

Inductive loops are the lowest-cost system for automatic traffic measures. It has several strengths, such as accuracy for counting data compared to other commonly used techniques, well-understood technology, providing basic traffic parameters (volume, speed, headway, and gap), an incentive for inclement weather, and so on. Alternatively, existing CCTV or IP cameras mounted at major road sections could also be utilized for manual or automatic traffic counting.



Source: https://www.quora.com/What-is-the-average-lifetime-of-an-induction-loop-detector



Source: https://constructionreviewonline.com/installations-materials/inductive-loop-technology-new-not-new/



Source: https://www.itwissen.info/en/inductive-loop.html#gsc.tab=0



Source: https://www.quora.com/What-is-the-average-lifetime-of-an-induction-loop-detector

1. Project Code	RB013	2. Proje	ct Title	Technica	al Training Pro	ogra	am on Road a	and Bridg	e Sect	or in Japan		
		I										
3. Implementation	n Agency	MITRANS				4.	. Implement	ation per	iod			
5. Project cost (bu	ıdget)	50 million CUP	(0.2 mill	ion USD p	er year)		Start	202	3	End	2030	
6. Source of finan	ce	⊠ State budge	et .			fina	ancing agend	cies	□ Fo	reign Investors		
	✓ Trans	sport Planning	Птоп	istics/Carg	•					Immediate		
	⊠ Road		_	☐ Bus passenger transport						(2022 – 2023)		
	☐ Railw		□ Bus passenger transport □ Environment			8. Project			Short-term			
7. Sector	☐ Aviat		Institution/Regulation			8. Project Priority			(2024 – 2026)			
							siness and others					
								(2027 – 2030)				
	Key Areas			Objective	(code)	_	10. Strategy	, ,		11. Goal (cod	•	
1. Planning and co				1.2			1.2.1, 1.2.2,			1.2.1.1, 1.2.2.1, 1.2.3.1		
2. Transport infra		•		, 2.5, 2.6		_	2.5.1, 2.5.2,			2.5.1.1, 2.5.2.1, 2.6.1.1		
3. Environment, s	afety, and	security	3.1	., 3.2, 3.3,	3.4		3.1.1, 3.1.2,	3.2.1, 3.3	3.1, 3.1.1.1, 3.1.2.1, 3.2.1		•	
						_	3.4.1			3.3.1.1, 3.4.1		
4. Transport servi	ce and indi	ustry developme	nt 4.1	., 4.2		_	4.1.1, 4.1.2,			4.1.1.1~4.2.3	.1	
Transport pricir	ng and reso	ource allocation	5.1	., 5.2, 5.3			5.1.1, 5.1.2,	5.1.3, 5.2	2.1	5.1.1.1, 5.1.2		
										5.2.1.1. 5.3.1	.1	
6. Institutional an	d regulato	ry development	6.2	., 6.3			6.2.1, 6.3.1			6.2.1.1, 6.3.1	.1	
12. Purpose of the	e project				13. Exp	oect	ted Benefits/	'Outcome	es			
To increase cap	acity build	ling in managing	and ope	rating road	ds • Acq	uisit	tion of road	and bridg	ge plar	ning and design	guideline	
and bridges for	the gover	nment sector.	•	-	• Kno	wle	dge about d	isaster-re	silient	: infrastructure o	peration	
					and	mai	intenance					
					• Und	laret	tanding of re		ridaa	guality and safe		

To increase capacity building in managing and operating roads	 Acquisition of road and bridge planning and design guidelines
and bridges for the government sector.	 Knowledge about disaster-resilient infrastructure operation
	and maintenance
	 Understanding of road and bridge quality and safety standards
	in the transportation framework
	 The efficiency of road and bridge operation
	 Acquisition of the importance of BCP (Business Continuity Plan)
	in disaster countermeasures.
14. Project Description	15. Social-environmental consideration
To manage a technical training program that enables the key	1) Social impacts – no impacts are expected
stakeholder to study the concept of systematic and strategic	2) Natural Environment – no impacts are expected
management of roads and bridges and get experience in road	3) Pollution – no impacts are expected
and bridge sector implementation in Japan	4) Environmental Impact Assessment (EIA) – no need
16. Relevant project(s)	
● RB012	
● RB012	

17. Projec	ct location	Province:	Japan	City:	
JICA train	ing center and	others			
18. Notes	(if any)				
Objective	s of the Trainir	ng Program fro	om the Participants		
1.	To acquire ex	periences and	knowledge about technologies,	methodologies, etc.,	from a developed country.
2.	Increasing kno	owledge on ac	lapting to the special conditions	of Cuba and learning	the good practices of the direction and
	management	of the transpo	ortation system.		
3.	To appreciate	the operation	of the transport system in Japan	n and acquire real ex	perience in executing the transport master
	plan in Cuba.				
4.	To inspire the	solution of tr	ansport problems and experience	e the development i	n Japan, the possibility of learning through
	the interchan	ge with Japan	ese researchers and engineers.		
5.	To improve th	ne organizatio	n and exploitation of different tra	ansport branches and	d their environmental-related activities.

Potential Locations for Site Visit





Electric Toll Collection (ETC) in toll gates

National Expressway

Bridge inspection example

- 6. Giving contribution, knowledge, and experiences to incorporate the transport policy in Cuba.
- 7. To acquire knowledge in the elaboration of the National Transport Master Plan to be a guide for development and Japanese experience could be a good reference for transport development.
- 3. To obtain the knowledge and skill for the development plan and project realization in Cuba.
- 9. To get insight into the formulation and implementation of transport policy, regulation, and control.
- 10. Formulation of the National Master Plan for Transportation Development to deal with the main challenges in social and economic aspects efficiently and comprehensively.



Lecture Class



Site Visit to Tokyo International Cruise Terminal

Group Training Focusing on Specific Themes

- 1. Transportation Administration of ITS (Intelligent Transport Systems) Practice JICA Tokyo
- 2. Transportation Administration of Traffic Safety JICA Kansai
- 3. Transportation Administration of Road Asset Management (A) JICA Tokyo
- 4. Transportation Administration of Road Asset Management (B) JICA Tokyo
- 5. Transportation Administration of Road Administration JICA Tokyo
- 6. Transportation Administration of Infrastructure management system for road administration JICA Hokkaido (Sapporo)
- 7. Transportation Administration Bridge Comprehensive JICA Kansai
- 8. Bridge Maintenance JICA Kyushu
- 9. National Transportation Highway Comprehensive JICA Tokyo
- 10. National Transportation Road Maintenance (B) JICA Hokkaido (Sapporo)
- 11. National Transportation Road Maintenance (C) JICA Okinawa
- 12. National Transportation Road Maintenance (D) JICA China

Organizations to Visit

- 1. Ministry of Land, Infrastructure, Transportation, and Tourism (MLIT)
- 2. Tokyo Metropolitan Government
- 3. Japan Highway Public Corporation (JHPC)
- 4. Cabinet Office of Japan
- 5. Japan Society Civil Engineers (SCSE).
- 6. NIPPO Corporation (Construction company for pavement)

Sites to Visit

- 1. Tokyo Bay Aqua-line Expressway
- 2. Akashi Kaikyo Bridge
- 3. Seto Bridge
- 4. Kan-etsu Tunnel (Kan-etsu Expressway)





Kan-etsu TunnelTokyo Bay Aqua-line Expressway

1. Project Code RB014 2. Project Title Capacity Development for Road Maintenance by Tech											hil C	kian Daniant	
1. Project Code	RB014	Ζ.	. Project	ritie	Capacity Dev	reiopmeni	TOF KO	ad iviai	ntenand	се ву те	echnical Coopera	tion Project	
3. Implementation	Δgency	CNV CP	V CIMAI	3 and	MICONS		4 Imn	lemen	tation p	erind			
5. Project cost (but						١٥٣١					Fnd	2020	
			•).2 MII	lion USD per ye	· ·		art		023	End	2030	
6. Source of financ	e		budget		×	External	inancin	ng agen	icies	L	oreign Investors		
	⊠ Trans	anart Dlan	nina		istias/Cargo						Immodiata		
	⊠ Road	sport Planı L/Bridgo	- 1	_	istics/Cargo passenger trai	ocnort					Immediate (2022 – 2023)		
	☐ Railw				ironment	isport	Q	Projec	+				
7. Sector	☐ Aviat	•			itution/Regula	tion		riority			(2024 – 2026)		
		Maritime			evant business			iority					
	_ 1 01 t/	Widirelline		T.C.	e varie basiliess	and other					(2027 – 2030)		
			<u> </u>										
	Key Areas		9. (Objective (code	de) 10. Strategy (code) 11. Goal (code)						e)		
1. Planning and co	ordination		1.1	, 1.4		1.1.1	l, 1.4.1			1.1.1.1, 1.4.1	.1		
2. Transport infras		2.2.1 2.2.1.1											
3. Environment, sa	, 3.2	3.1.1, 3.1.2, 3.2.1, 3.3.1 3.1.1.1, 3.1.2						.1, 3.2.1.1					
4. Transport servic	., 4.2		4.1.1	L, 4.1.2	, 4.2.1~	4.2.3	4.1.1.1~4.2.3	.1					
5. Transport pricing													
6. Institutional and	l regulato	ry develop	ment										
12. Purpose of the						13. Exp	ected B	enefits	/Outco	mes			
 To enhance mar organizations. 	iagement	capacity i	or maint	chanc	e or relevant	 road maintenance is improved. The latest road conditions in Cuba are available promptly. The process for formulating road maintenance plans is established. 							
14. Project Descrip	tion					established. 15. Social-environmental consideration							
To manage regu	lar meetii	ngs with re	elevant o	rganiz	ations and	1) Soci	ial impa	acts – n	o impa	cts are e	expected		
prepare a trainii	ng plan fo	r relevant	staff			2) Nat	ural Env	vironm	ent – no	o impac	ts are expected		
• To review the in	nplementa	ation struc	ture for	road n	naintenance	3) Poll	ution –	no imp	oacts ar	е ехрес	ted		
 To review existing 	ng inspect	tion metho	ds, deve	lop an	adequate	4) Env	ironme	ntal Im	pact As	sessme	nt (EIA) – no nee	d	
inspection meth	od, and c	onduct tra	ining for	inspe	ction method								
 To collect the re 	levant da	ta for mair	ntenance	plann	ing								
To analyze road		ı data base	ed on roa	id con	dition								
inspection resul													
To conduct deta		tigation or	n necess	ary roa	a sections								
and repair the dTo prepare a me	-	a torm ma	nintonan	co nlar	•								
To prepare a me To schedule an a		_		ce piai	ı								
16. Relevant project		amteriance	. piuri										
• RB013	ct(s)												
• KB013													
									ı				
17. Project location	n P	rovince:	All pro	vince			Ci	ity:					
18. Notes (if any)													
To raise a sense of people in each pro with private entery in projects to addr	ject's targ orises, uni	get area pa versities, N	rticipate NGOs, ar	in pla	nning, operation	n manage	ement,	and ev	aluation	n activit	ies. Furthermore	, collaborate	

JICA-Integrated Implementation Process of Technical Cooperation

- Project identification and formulation
 JICA identifies and formulates projects through discussion with the government of the partner country, information gathering by JICA's overseas offices, and initial surveys.
- Request and approval
 Based on a request from the partner country, the Ministry of Foreign Affairs of Japan, other related ministries, and JICA discuss whether or not to approve the project. The approved project is reported to the partner country by the Japanese government, and note verbals are exchanged by diplomatic missions abroad
 - Examination/Ex-Ante Evaluation

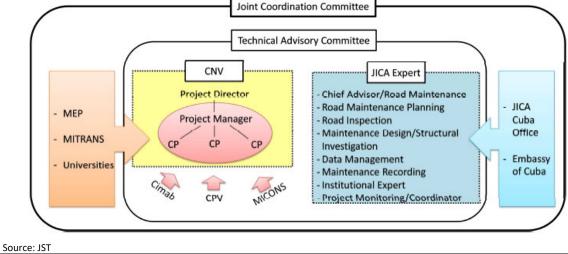
 To clarify details and expected outcomes of the project and comprehensively examine the appropriateness of implementation, ex-ante evaluation is conducted based on five criteria: relevance, effectiveness, efficiency, impact, and sustainability.
- Project Implementation/Mid-term review/Terminal Evaluation
 JICA and the government organization of the partner country sign a Record of Discussions (R/D) regarding project
 implementation, details of activities, and necessary measures. Evaluation indicators set in ex-ante evaluation are used as the basis of the mid-term review conducted at a certain point from the project inception, and terminal evaluation conducted a half year before the project completion. Each evaluation result is used as a recommendation for improving the project.
- Follow-up/Ex-post evaluation
 In case unexpected problems emerge, Follow-up Cooperation is provided when necessary. Ex-post evaluation is carried out several years after the project's completion. Evaluation results are used as lessons learned for formulating and implementing similar projects.

Implementation structure

In this technical cooperation, CNV is considered the best organization to serve as the main counterpart, assisted by CPV for suburb area support, Cimab for inspection and study, and MICONS for maintenance/repairing work and recording. In addition, MEP and MITRANS could be members of a Joint Coordination Committee (JCC) along with relevant universities for research and training purposes.

Moreover, a draft implementation structure of the road maintenance capacity development project is shown below.

Implementation Structure for Capacity Development Project



Project for Formulation o	f National Transport	Master Plan i	n the Republic of C	uba
Final Report				

Chapter 6

Appendix A2: Road Transport Sector (Bus)

1. Project Code	RTOC)1	2. Projec	t Title	Tourist b	ous service	plan	& operation	coordina	tion				
		l												
3. Implementation	Agency	MITE	RANS, MIN	TUR, MI	NFA		4	4. Implement	ation per I	riod	1	I		
5. Project cost (but	dget)	5.0 r	million CU	(200,0	00 USD)	ı		Start	202	2	End	2024		
6. Source of finance	e	⊠ St	ate budge	t		☐ Exter	nal fir	nancing agen	cies	☐ Pr	ivate investors			
	1													
	⊠ Trans	-	_	☐ Log	istics/Carg	0					Immediate			
	☐ Road	_	9		passenge	r transpor	t				(2022 – 2023)			
7. Sector	☐ Railw	-			ironment			8. Project	Ī.		Short-term			
	☐ Aviat				itution/Re	_		Priority			(2024 – 2026)			
	☐ Marit	ime		⊠ Rel	evant busi	ness and o	thers				☐ Medium-term			
											(2027 –	2030)		
	Key Areas			9.	Objective ((code)		10. Strategy	(code)		11. Goal (cod	de)		
1. Planning and coo	<u> </u>			1.1		(000.0)		1.1.1, 1.1.2	(0000)		1.1.1.1~2, 1.	•		
2. Transport infras				· · · · · · · · · · · · · · · · · · ·										
3. Environment, sa	3. Environment, safety, and security													
4. Transport servic	e and indu	ustry d	evelopme	nt										
5. Transport pricing	g and resc	ource a	llocation											
6. Institutional and	l regulato	ry deve	lopment											
12. Purpose of the							-	cted Benefits,						
To efficiently us						-	The existing bus vehicles are effectively used. Additional investment to procure new buses can be saved.							
three central ad			-			·								
to share the bus	venicies	ror tne	tourists a	na Cuba	n people c	an 📗	keven	ue from the t	ourism s	ector t	ransportation is	s increased.		
be considered.	high love	l coord	ination co	mmittac	and an									
 In this regard, a attached impler 	-													
proposed.	nemation	anne re	or the cool	amation	i di C									
14. Project Descrip	tion					15.	Socio	-economic co	nsiderat	ion				
• Establishment o	f a coordi	nation	committe	e of tou	rist bus	1)	Socia	l impacts – n	o signific	ant im	pacts are expec	ted		
service provider	s under th	ne MIT	RANS, MIN	ITUR, an	d MINFAR	2)	Natu	ral Environme	ent – no s	ignific	ant impacts are	expected		
Development of	a bus ope	eration	/vehicle a	rrangem	ent plan fo	or 3)	Pollu	tion – no sign	ificant in	npacts	are expected			
international to	urists					4)	Envir	onmental Imp	oact Asse	ssmen	it (EIA) – not red	quired		
 Establishment o 	f operatio	n cons	ignment s	ystem (s	haring									
vehicles and human resources) for tourist services using ICT														
16. Relevant proje	ct(s)													
• RT006, RT007, R	RT008													
17. Project location	n P	rovinc	e: All					City:						
•														
18. Notes (if any)														
1 🛋														

	ı													
1. Project Code	RT00	02	2. Proje	ct Title	Intercity	bus servic	e pla	n & o	peration	coordina	ation			
3. Implementation	Agency	MITR	ANS				4	4. lm	plement	ation per	iod			
5. Project cost (but	dget)	7.5 r	nillion CU	P (300,0	000 USD)			St	art	202	2	End	2025	
6. Source of finance	е	⊠ St	ate budge	t		☐ Exterr	nal fin	ancir	ng agenc	ies	☐ Pri	vate investors		
		sport P	lanning	□ Lo	gistics/Carg	0					\boxtimes	Immediate		
	☐ Road	/Bridge	2	⊠ Bu	s passengei	r transport	:					(2022 – 2023)		
7. Sector	☐ Railw	v ay		☐ En	vironment			8. Project			\boxtimes	Short-term		
7. 30000	☐ Aviat	ion		Ins	titution/Re	gulation		Priority				(2024 – 2026)		
	☐ Mari	time		Re	levant busii	ness and o	ess and others							
												(2027 – 3	2030)	
	Key Areas	5		9.	Objective (code)		10.	Strategy	(code)		11. Goal (cod	le)	
1. Planning and co	1. Planning and coordination 1.2							1.2.	1			1.2.1.1~3		
2. Transport infrastructure development														
3. Environment, safety, and security														
4. Transport servic	e and ind	ustry d	evelopme	nt										
5. Transport pricing	g and reso	ource a	llocation											
6. Institutional and	l regulato	ry deve	lopment											
_														
12. Purpose of the	project					13.	Exped	cted E	Benefits/	'Outcome	es			
• To support Cuba	ans' socio	-econo	mic activit	ies (inte	er-provincia	ol ● T	The existing bus vehicles are effectively used.							
travels), the inte	ercity bus	service	plays a vi	tal role		• A	dditio	onal i	investme	ent to pro	cure n	ew buses can b	e saved.	
• In this regard, d	emand-re	sponsiv	ve intercit	y bus se	rvices can l	be R	even	ue fro	om the ii	ntercity b	us serv	vices is increase	·d.	
developed with	a limited	numbe	r of buses											
Besides, a collab		vith the	private b	us and	taxi operato	ors								
needs to be mad						45	C ' -		•					
14. Project Descrip						_				nsiderati				
Based on the bu	is coach d	latabas	e, the use	of the	existing bus			-		-	-	acts are expec		
is optimized.			,								_	int impacts are	expected	
Development of		-		enicle a	irrangemen				_		-	are expected	11	
plan for intercity	•	•			, , ,	4)	Envir	onme	ental Imp	oact Asses	ssment	: (EIA) – not rec	luired	
Establishment o	•		•	nt syste	m (sharing									
vehicles and hur 16. Relevant project														
• RT007, RT008, R	. ,													
- K1007, K1008, K	11003													
17. Project location	n F	Province	e: All						City:					
•	'	. 5	·											
18. Notes (if any)	B. Notes (if any)													

1. Project Code	RT00	03	2. Projec	ct Title	A compr	ehensive bus	net	work devel	opment p	olan			
							1						
3. Implementation	Agency	MITRA	ANS				4.	Implement	ation per	riod	ı		
5. Project cost (but	dget)	11.3 r	million CU	P (450,0	000 USD)			Start	202	!3	End	2025	
6. Source of finance	е	⊠ Sta	ate budge	t		☐ External	fina	ncing agend	cies	☐ Pr	ivate investors		
	⊠ Tran	sport Pl	anning	☐ Log	istics/Cargo	0					Immediate		
	☐ Road	_	!	⊠ Bus	passenger	rtransport					(2022 – 2023)		
7. Sector	☐ Railw	•			ironment			8. Project	t		Short-term		
	☐ Aviat				itution/Re	_		Priority			(2024 – 2026)		
	☐ Mari	time		Rei	evant busir	ness and oth	ers				☐ Medium-term (2027 – 2030)		
	<u> </u>										(2027 –	2030)	
	Key Areas	5		9. (Objective (code)	ode) 10. Strategy (code) 11. Goal (code					de)	
	,						2.1~4, 1.4.1.1,						
1. Planning and co	ordination	n		1.3	, 1.4		1	1.3.1~2, 1.4	.1~2		1.4.2.1~2		
2. Transport infras													
3. Environment, safety, and security													
4. Transport service	4. Transport service and industry development												
5. Transport pricin													
6. Institutional and	l regulato	ry devel	lopment										
10.0						10.5		10 6:	10.				
12. Purpose of the		. 1. 1 . 1 1			•			ed Benefits,				. C. h	
As the basis for			_	=	·							Cubans as	
coordination sys		-									ail and ferry ser	vices is	
A hierarchical be		-	· ·				elop		invicy with	i tile it	an and terry ser	VICES 13	
connectivity wit					-		•	e from the b	ous servic	es is ir	ncreased.		
14. Project Descrip	tion					15. So	сіо-е	economic co	nsiderati	ion			
Comprehensive	(hierarch	ical) bus	s passeng	er transı	ort netwo	ork 1) So	cial i	mpacts – n	o signific	ant im	pacts are expec	ted	
plan (main islan	d)					2) Na	tura	l Environme	ent – no s	ignific	ant impacts are	expected	
 Sustainable ope 	ration pla	n for in	tercity bu	s passer	iger	3) Po	llutio	on – no sign	ificant in	npacts	are expected		
transport with s			truck bus	and taxi	operators	4) En	viror	nmental Im	pact Asse	ssmen	it (EIA) – not red	quired	
(individual busir		•											
Sustainable ope	-			•									
support from th business owners		us and ta	axi opera	tors (res	pective								
Provision of highly profitable services such as airport services													
16. Relevant proje				35 an pc									
• RT001, RT002, F	. ,	007, RT0	008, RT00	9									
	•												
17. Project location	n F	Province	e: All					City:					
•								,					
18. Notes (if any)													
. , , , , ,													

1. Project Code	RT00)4	2. Projec	t Title	Revision	of the bus	are s	system				
3. Implementation	Agency	MITR	ANS				4	. Implement	ation per	iod		
5. Project cost (but	dget)	3.8 m	illion CUP	(150,00	00 USD)			Start	202	2	End	2024
6. Source of finance	e	⊠ Sta	ate budge	t		☐ Externa	l fina	ancing agend	cies	□ Pr	ivate investors	
		sport P	lanning	☐ Log	istics/Carg	ю				\boxtimes	Immediate	
	☐ Road	/Bridge	?	⊠ Bus	s passenge	r transport					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Env	rironment			8. Project	:		Short-term	
	☐ Aviat	ion		Ins	titution/Re	gulation		Priority			(2024 – 2026)	
	☐ Mari	time		Rel	evant busi	ness and ot	ss and others Medium-term					
											(2027 – 1	2030)
	Key Areas 9. Objective (continuing and coordination								(code)		11. Goal (cod	le)
	Transport infrastructure development											
3. Environment, sa												
	Transport service and industry development Transport pricing and resource allocation 5.2							5.2.1			5.2.1.1~4	
6. Institutional and	l regulato	ry deve	lopment									
							•				•	
12. Purpose of the	project					13. E	pec	ted Benefits,	/Outcome	es		
• The bus fare sys	tem shou	ld be re	eviewed a	nd upda	ted based	on Re	venu	ue from the b	ous servic	es is ir	creased	
the level of serv	ices (LOS)					• Us	ing t	he increased	revenue	, furth	er LOS improve	ment is
 Considering the 	provision	of high	ner LOS bu	ıs transp	ort service	es, ex	ecte	ed				
a higher bus fare	e can be a	pplied	for intern	ational t	ourists.							
An affordable fa	-					t						
at the same time	e, a differ	ent fare	e structure	e can be	used in							
accordance with	n LOS.											
14. Project Descrip	tion					15. S	ocio-	economic co	nsiderati	on		
Flexible operation	on and fai	e syste	ms for int	ercity bu	uses to	1) S	ocial	impacts - n	o signific	ant im	pacts are expec	ted
respond to seas	onal peak	off-pe	ak deman	d		2) N	atur	al Environme	ent – no s	ignific	ant impacts are	expected
 Flexible fare for 	luxury bu	s servic	es for for	eign pas	sengers	3) P	ollut	ion – no sign	ificant im	pacts	are expected	
The flexible fare	4) E	nviro	nmental Im	oact Asse	ssmen	t (EIA) – not rec	_l uired					
16. Relevant projec												
• RT001, RT002, R	RT003											
17. Project location	n F	rovince	e: All					City:				
•												
18. Notes (if any)	L8. Notes (if any)											

1. Project Code	RT00)5	2. Projec	t Title	Informat	tion for bu	s pas	sengers					
3. Implementation	Agency	MITRA	ANS					4. Impler	nent	ation per	iod		
5. Project cost (but	dget)	2.5 mi	illion CUF	(100,00	00 USD)			Start		202	4	End	2024
6. Source of financ	e	⊠ Sta	te budge	t		⊠ Exter	nal fi	nancing a	ageno	cies	☐ Pri	ivate investors	
		•				•							
	⊠ Trans	sport Pla	anning	☐ Log	istics/Carg	0						Immediate	
	☐ Road	/Bridge		⊠ Bus	passenge	r transport	:					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Env	ironment			8. Pr	oject		\boxtimes	Short-term	
7. Sector	☐ Aviat	ion		Inst	titution/Re	gulation		Prior	ity			(2024 – 2026)	
	☐ Marit	ime		Rel	evant busii	ness and o	ss and others Medium-term						
												(2027 –	2030)
	Key Areas			9.	Objective (code)		10. Stra	ategy	(code)		11. Goal (cod	le)
1. Planning and co	ordination	1											
2. Transport infrastructure development 2.2								2.2.1~2	.2.3			2.2.1.1~2, 2.2	2.2.1~3,
												2.2.3.1~3	
3. Environment, safety, and security													
4. Transport servic	e and ind	ustry de	velopme	nt									
5. Transport pricing	g and reso	ource all	ocation										
6. Institutional and	l regulato	y devel	opment										
r													
12. Purpose of the	project					13.	13. Expected Benefits/Outcomes • The number of bus users will be increased.						
Bus arrival/depa	arture info	rmation	should l	oe provi	ded at bus								
terminals and st	•							dingly, th					
Other useful info					•		•		ased	revenue	, furthe	er LOS improve	ment is
accidents, adver		s, etc. w	ill also be	provide	ed.		xpec						
14. Project Descrip	tion					15.	Socio	-econom	nic co	nsiderati	ion		
 Preparation of e 	easy-to-un	derstan	d route n	naps and	d bus maps	1)	Socia	l impacts	5 – n	o signific	ant im	pacts are expec	ted
Improve the cor	nvenience	of the p	ublic tra	nsportat	ion netwo	rk 2)	Natu	ral Enviro	onme	ent – no s	ignifica	ant impacts are	expected
by introducing a	clock-fac	e schedi	ule and t	ransfer f	are discou	nt 3)	Pollu	tion – no	sign	ificant in	npacts	are expected	
system.						4)	Envir	onmenta	ıl Imp	oact Asse	ssmen	t (EIA) – not rec	luired
16. Relevant project(s)													
• RT001, RT002, RT003, RT009, RT010													
17. Project location	n P	rovince:	: All					City:					
•			•										
18. Notes (if any)													
•													

1. Project Code RT006 2. Project Title Advanced bus operation and management system development 3. Implementation Agency MITRANS 4. Implementation period			
3 Implementation Agency MITRANS 4 Implementation period			
3 Implementation Agency MITRANS 4 Implementation period			
5. Implementation regency with the second se			
5. Project cost (budget) 30.0 million CUP (1.2 million USD) Start 2024 End	2026		
6. Source of finance ☐ State budget ☐ External financing agencies ☐ Private investors			
☐ Immediate ☐ Immediate			
☐ Road/Bridge ☐ Bus passenger transport (2022 – 2023)	(2022 – 2023)		
7. Sector			
☐ Aviation Institution/Regulation Priority (2024 – 2026)			
☐ Maritime Relevant business and others ☐ Medium-term			
(2027 – 2030))		
Key Areas 9. Objective (code) 10. Strategy (code) 11. Goal (code)			
1. Planning and coordination			
2. Transport infrastructure development 2.2 2.2.1~2.2.3	.~3,		
2.2.3.1~3			
3. Environment, safety, and security			
Transport service and industry development Transport pricing and resource allocation			
6. Institutional and regulatory development			
o. Institutional and regulatory development			
12. Purpose of the project 13. Expected Benefits/Outcomes			
An advanced O&M system should be developed using ICT to Buses are efficiently used; accordingly, losses such as 1	uel		
optimize bus operation and fleet management. consumption, dead runs, the number of workers, etc.,			
● The bus O&M center control and manage the bus fleet minimized.			
movement. • The financial sustainability of bus service providers is i	mproved.		
14. Project Description 15. Socio-economic consideration	•		
Online operation information by digitizing all bus operation Social impacts — no significant impacts are expected.			
information. (GTFS, General Transit Feed Specification) 2) Natural Environment – no significant impacts are exp	ected		
• Real-time route/operation information using mobile 3) Pollution – no significant impacts are expected			
applications 4) Environmental Impact Assessment (EIA) – not require	d		
• Introduction of dynamic bus operation information system			
(GTFS real-time) by installing GPS devices on bus vehicles			
Establishment of operation planning/monitoring system for			
operation management			
16. Relevant project(s)			
● RT005, RT007			
17. Project location Province: All City:			
•			
18. Notes (if any)			

1. Project Code	RTO	07	2. Projec	t Title	Digital to	ransformatio	n fo	or the mana	gement of	bus fl	eets and spare p	parts	
					•								
3. Implementation	Agency	MITRA	ANS				4	4. Implemer	ntation per	riod			
5. Project cost (but	dget)	10.0 r	million CU	P (400,0	000 USD)			Start	202	24	End	2025	
6. Source of financ	e	⊠ Sta	ate budge	t		⊠ Externa	l fir	nancing age	ncies	□ Pr	ivate investors		
										•			
	⊠ Tran	sport Pl	anning	☐ Log	istics/Carg	0					Immediate		
	☐ Road	/Bridge		⊠ Bus	passenge	r transport					(2022 – 2023)		
7. Sector	☐ Railw	ay			ironment			8. Project			Short-term		
7. 000.0.	☐ Aviat	ion		Ins	titution/Re	gulation		Priority			(2024 – 2026)		
	☐ Mari	time		Rel	evant busi	ness and oth	ss and others Medium-term						
											(2027 – 2	2030)	
Key Areas 9. Objective (cod								10. Strateg	gy (code)		11. Goal (cod	le)	
1. Planning and coordination													
Transport infrastructure development 2.3 Environment, safety, and security								2.3.1			2.3.1.1		
	•						-						
Transport servic Transport pricing			•	nt									
6. Institutional and							1						
o. mstitutional and	regulato	i y uevei	юричени										
12. Purpose of the	project					13. Ex	рес	ted Benefit	s/Outcom	es			
• To support bus	D&М, а со	ompreh	ensive da	tabase o	of bus fleet	s • Bu	s ор	eration coc	rdination	can be	easily made usi	ng the	
and spare parts,	bus drive	ers, tech	nicians, e	tc., sho	uld be	da	 Bus operation coordination can be easily made using the database. 						
developed.						● Bu	ор	eration is e	fficiently n	nade; a	accordingly, loss	es such as	
• The database (a	t the data	center) is shared	d by vari	ous bus	fue	l co	nsumption	dead runs	s, the n	umber of drive	rs/workers,	
operators for up	dating co	ordinat	ed bus op	eration	S	eto	., ar	re minimize	d.				
• The spare parts	informati	on is sh	ared by w	orkshop	os for	• Th	e fir	nancial sust	ainability o	of bus s	service provider	s is	
efficient bus ma	intenance	2.				im	orov	ved.					
14. Project Descrip	tion					15. Sc	cio-	-economic	considerat	ion			
 Digitization of ir 	ventory i	nformat	tion of bu	s vehicle	es/spare	1) So	cial	l impacts –	no signific	ant im	pacts are expec	ted	
parts and establ	ishment o	of a rene	ewal plan			2) N	atur	ral Environn	nent – no s	ignific	ant impacts are	expected	
 Establishment o 		-				3) P	ollut	tion – no sig	nificant in	npacts	are expected		
on vehicle/spare		d engin	eers of ea	ich UEB	using ICT	4) E	viro	onmental Ir	npact Asse	ssmen	t (EIA) – not req	luired	
16. Relevant project													
• RT005, RT006													
									1				
17. Project location	n P	rovince	e: All					City:					
•													
18. Notes (if any)	18. Notes (if any)												
•	•												

1. Project Code	RT00	08	2. Projec	t Title	Urgent b	ous fle	eet rehabil	itation and p	rocureme	nt		
-												
3. Implementation	Agency	MITE	RANS					4. Implement	ation per	iod		
5. Project cost (but	dget)	1.5 b	illion CUP	(58 milli	on USD)			Start	202	3	End	2026
6. Source of financ	е	⊠ St	ate budge	t		× I	External fir	nancing agen	cies	□ Pr	ivate investors	
		•							•			
	⊠ Tran	sport P	Planning	☐ Log	istics/Carg	0				\boxtimes	Immediate	
	☐ Road	/Bridge	e	⊠ Bus	passenge	r tran	sport				(2022 – 2023)	
7. Sector	☐ Railw	/ay		☐ Env	ironment			8. Project	t	\boxtimes	Short-term	
7. 5000	☐ Aviat	ion		Inst	titution/Re	gulat	ion	Priority			(2024 – 2026)	
	☐ Mari	time		Rel	evant busi	ness a	and others				Medium-term	
											(2027 – 2	2030)
	Key Areas			9. (Objective (code)	10. Strategy	(code)		11. Goal (cod	e)
1. Planning and co				2.2				224			2211	
Transport infras S. Environment, sa				2.3	•			2.3.1			2.3.1.1	
4. Transport service	•		•	nt								
5. Transport pricing				11.								
6. Institutional and												
		,		I							1	
12. Purpose of the project							13. Exped	ted Benefits,	/Outcome	es		
• It is necessary to increase the number of available bus fleets					bus fleets.	. It	• The le	vel of service	(LOS) of E	ON bu	uses will be imp	roved.
was 61% of all E	ON buses	in 201	9. This sho	uld be i	ncreased t	О	• The fir	ancial sustai	nability of	EON	is improved.	
70% by the end	of 2023.											
• The number of E	EON buse:	s shoul	d be incre	ased to	1,000 by th	ne						
end of 2024. It v	was 846 fl	eets in	2019.									
 Procurement of 					be made							
based on the bu	s fleet/sp	are pa	rts renewa	l plan								
14. Project Descrip	tion						15. Socio	-economic co	nsiderati	on		
• The conditions of		_			_		•	•	•		pacts are expect	
2022/2023. The	•	entory	of the exis	ting bus	fleets)					-	ant impacts are	expected
should be digitize								_		-	are expected	t and
 Based on this in availability of but 	_		•		ase the		4) Envir	onmentai im	pact Asses	ssmen	t (EIA) – not req	uirea
In addition to re					d huses) a							
plan for procure			_		-							
on the demand				n be pre	parca base	-u						
The repair and p				mpleme	ented and							
completed by th		-		•								
16. Relevant projec	ct(s)											
• RT005, RT006, R	RT007											
17. Project location	n P	rovinc	e: All					City:				
•	•		•									
18. Notes (if any)												
•												

1. Project Code	RTOC	10	2. Projec	+ Ti+lo	Intercity	huc t	orminal ro	novation				
1. Project Code	KIUC	19	Z. Projec	t ritie	intercity	bus t	erminal re	enovation				
3. Implementation	Agency	MITE	ANS					4. Implement	ation ner	iod		
				/40:!!	in a LICD)						F. d	2020
5. Project cost (bud			illion CUP		ion USD)			Start	202		End	2030
6. Source of financ	e	⊠ St	ate budge	t		⊠E	External fi	nancing agen	cies	□ Pri	ivate investors	
	⊠ Trans	-	_		istics/Cargo						Immediate	
	☐ Road		5		passenger	trans	sport			_	(2022 – 2023)	
7. Sector	☐ Railw	-			ironment			8. Project	Ī		Short-term	
	☐ Aviat				titution/Re	_		Priority		_	(2024 – 2026)	
	☐ Marit	ime		Rel	evant busir	ness a	and others			-	Medium-term	2000)
											(2027 – 2	(030)
	Key Areas			٥	Objective (codo)		10. Strategy	(codo)		11. Goal (cod	0)
1. Planning and coo	<u> </u>			<u>J.</u>	Objective (code	/	10. Strategy	(code)		11. doar (cou	<u> </u>
Transport infrast			ment	2.2)			2.2.1, 2.2.3			2.2.1.1~2, 2.2	.3.1~3
3. Environment, sa					•			2.2.1, 2.2.0				
4. Transport service				nt								
5. Transport pricing												
6. Institutional and	l regulato:	y deve	lopment									
				•								
12. Purpose of the	project						13. Expe	cted Benefits,	/Outcome	es		
The existing integrated in the existing i	ercity bus	termin	als need to	be ren	ovated to		• The le	vel of service	(LOS) for	bus pa	assengers will be	improved.
increase the leve	el of comf	ort and	d services	for the b	us		Variou	ıs business op	portuniti	es will	be created.	
passengers.							• The fir	nancial sustai	nability of	the b	us terminal ope	ration is
Business opport	unities fo	r state	and non-s	tate ent	erprises ne	ed	impro	ved.				
to be provided i	n the inte	rcity bu	us termina	ls (retai	/commerci	ial						
spaces should be	e increase	ed).										
Each province's	=											
products) can be	e sold in tl	ne bus	terminals	to supp	ort the loca	al						
economy. 14. Project Descrip	tion						15 Socio	-economic co	ncidorati	on		
		nlan +	a include s								ara ayaastad	
 A bus terminal r retail/commerci 		-			acre' comfo	ort		-		-	are expected ant impacts are	ovnoctod
will be prepared	-				gers comin	,,,,		tion – no sign		_	· ·	expected
• As a part of the		-			nrovision	of	•	•		•	t (EIA) – require	d in case of
the traffic/event		•			•		•	ional space a				a iii case oi
 Corresponding of 	•	-										
will be made ba	•		, ,									
Renovation wor	k starts in	2024 a	and will be	comple	ted by the							
end of 2030.												
16. Relevant projec	ct(s)											
• RT005, RT006, R	T007, RT0)11, RT	012									
17. Project location	n P	rovince	e: All					City:				
•												
18. Notes (if any)												
•												

1. Project Code	1. Project Code RT010 2. Project Title Advance					ed cove	ed covered bus stops (smart bus shelters) development						
3. Implementation	Agency	Provi	nces					4. Implem	nent	ation peri	iod		
5. Project cost (bu	dget)	425 r	million CUF	(17 mi	llion USD)			Start		202	3	End	2028
6. Source of finance	е	⊠ St	ate budge	t		⊠ Ex	xternal fi	nancing a	geno	cies	☐ Pri	ivate investors	
						ı							
	⊠ Trans	sport P	lanning	☐ Log	istics/Carg	;o						Immediate	
	☐ Road	/Bridge	2	⊠ Bus	passenge	r trans	port					(2022 – 2023)	
7 (☐ Railw	ay		☐ Env	ironment			8. Pro	oject		\boxtimes	Short-term	
7. Sector	☐ Aviat	ion		Inst	itution/Re	egulatio	on	Priori	ity			(2024 – 2026)	
	☐ Marit	ime		Rel	evant busi	ness ar	nd others	;			\boxtimes	Medium-term	
												(2027 –	2030)
	Key Areas			9.	Objective ((code)		10. Strat	tegy	(code)		11. Goal (cod	le)
1. Planning and co	ordination	1											
2. Transport infras	tructure d	evelop	ment	2.2				2.2.2				2.2.2.1~3	
3. Environment, sa	fety, and	security	у										
4. Transport service	e and indu	ustry de	evelopmer	nt									
5. Transport pricin	g and resc	urce a	llocation										
6. Institutional and	l regulato	y deve	lopment										
12. Purpose of the project							13. Expe	cted Bene	efits/	'Outcome	es .		
• The existing bus stops in each province need to be upgraded to					to	• The le	vel of serv	vice	(LOS) for	bus pa	assengers will b	e improved.	
smart bus stops	(covered	bus sto	ps with in	formati	on provisio	on	• Variou	ıs busines	s op	portuniti	es will	be created.	
devices).							• The fi	nancial su	stair	nability of	the p	rovincial bus se	rvices is
Bus location/arr	ival inforn	nation	needs to b	e provi	ded to		impro	ved.					
passengers wait	ing for bu	ses at b	ous stops.										
 Business opport 	unities su	ch as a	dvertisem	ents car	be provid	led							
at bus stops.													
14. Project Descrip	tion						15. Socio	-economi	ic co	nsiderati	on		
• A bus stop reno	vation pla	n (sma	rt bus stop	develo	pment pla	n)	1) Socia	l impacts	– p	ositive im	pacts	are expected	
for each provinc	e is prepa	red by	each prov	ince un	der the		2) Natu	ral Enviro	nme	ent – no si	ignifica	ant impacts are	expected
supervision of N	IITRANS.						3) Pollu	tion – no	sign	ificant im	pacts	are expected	
 Corresponding of 	design, co	nstruct	ion plan, a	nd cost	estimates	. .	4) Envir	onmental	l Imp	oact Asses	ssmen	t (EIA) – not red	luired
will be made ba		-											
 Renovation wor 	k starts in	2024 a	nd will be	comple	ted by the	2							
end of 2028.													
16. Relevant proje	ct(s)												
• RT005, RT009													
							1						
17. Project location	n P	rovince	e: All					City:					
•													
18. Notes (if any)													
•													
1													

1. Project Code	RT01	1 2.	. Projec	t Title	Safety in	nprovem	nent p	rojects						
3. Implementation	Agency	MITRAN	IS					4. Impl	ement	ation per	iod			
5. Project cost (bud	dget)	18.6 mil	lion CU	P (742	thousand U	ISD)		Stai	rt	202	.3	End	2028	
6. Source of financ	e	State	budge	t		⊠ Exte	ernal	inancing	gageno	ies	☐ Pri	vate investors		
		I.				l				L				
	⊠ Tran:	sport Plan	ning	☐ Lo	gistics/Carg	0						Immediate		
	☐ Road	/Bridge		⊠ Bu	s passengei	r transpo	ort					(2022 – 2023)		
7 Castan	☐ Railw	ay		⊠ En	vironment			8. 1	Project		\boxtimes	Short-term		
7. Sector	☐ Aviat	ion		Ins	titution/Re	gulation	n	Pri	ority			(2024 – 2026)		
	☐ Marit	ime		Re	levant busii	ness and	d othe	rs			\boxtimes	Medium-term		
												(2027 – 2	2030)	
	Key Areas			9.	Objective (code)		10. St	rategy	(code)		11. Goal (cod	e)	
1. Planning and coo	ordination	1												
2. Transport infras	tructure d	evelopme	nt											
3. Environment, sa	fety, and	security		3.	1			3.1.1	~ 3			3.1.1.1, 3.1.2	.1, 3.1.3.1	
4. Transport service	e and ind	ustry deve	lopmer	nt										
5. Transport pricing and resource allocation														
6. Institutional and regulatory development														
r														
12. Purpose of the	project					13	3. Exp	ected Be	nefits/	'Outcome	es			
Decrease the nu	ımber of t	raffic acci	dents p	er 1 mi	llion-km bu	s	• The I	evel of s	afety f	or bus pa	ssenge	ers will be impro	oved.	
service (It was 1	.76 for EC	N in 2018)			•	• The o	costs of r	epair v	will be re	duced.			
						•	● The f	inancial	sustair	nability o	f the bu	us operators wi	ll be	
							impr	oved.						
14. Project Descrip	tion					15	5. Soci	o-econo	mic co	nsiderati	on			
• Establishment o	f vehicle s	tandards	and lice	ense sy	stem from t	:he 1)) Soci	al impac	ts – p	ositive in	npacts	are expected		
viewpoint of saf	ety mana	gement				2)) Nat	ural Envi	ironme	nt – no s	ignifica	ant impacts are	expected	
 Installation of in 	-vehicle c	ameras or	n bus ve	ehicles	and	3)) Poll	ution – r	no sign	ificant im	pacts a	are expected		
monitoring						4)) Env	ironmen	tal Imp	act Asse	ssment	t (EIA) – not req	uired	
 Install CCTV at the 	he bus ter	minals an	d bus s	tops, th	en establis	h a								
monitoring syste	em													
16. Relevant projec	ct(s)													
• RT005, RT009, R	T010													
17. Project location	n P	rovince:	All					Cit	у:					
•									•					
18. Notes (if any)														
•														

1. Project Code	RT0:	12	2. Projec	t Title	Resilienc	cy imp	orovemen	t projects				
	<u>I</u>		,			<u> </u>		. ,				
3. Implementation	Agency	MITR	ANS					4. Impleme	ntation per	riod		
5. Project cost (but	dget)	56.8	million CU	P (2.27	million USE	D)		Start	202	23	End	2025
6. Source of finance	е	⊠ St	ate budge	t		× I	External fi	nancing age	ncies	□ Pr	ivate investors	
	⊠ Tran	sport P	lanning	□ Lo	gistics/Cargo	0				\boxtimes	Immediate	
	☐ Road	/Bridge		⊠ Bı	s passengei	r tran	sport				(2022 – 2023)	
	☐ Railw	/ay		⊠ Er	vironment			8. Proje	ct	\boxtimes	Short-term	
7. Sector	☐ Aviat	ion		In	stitution/Re	gulat	ion	Priority			(2024 – 2026)	
	☐ Mari	time			levant busir	_		;			Medium-term	
											(2027 –	2030)
								•		•		
	Key Areas	S		9	. Objective	(code	<u>:</u>)	10. Strate	gy (code)		11. Goal (cod	le)
1. Planning and co	ordination	n										
2. Transport infras	tructure d	develop	ment									
3. Environment, sa	fety, and	securit	у	3	.2			3.2.1~2			3.2.1.1~2, 3.	2.2.1~3
4. Transport servic	e and ind	ustry de	evelopme	nt								
5. Transport pricing	g and reso	ource a	llocation									
6. Institutional and	regulato	ry deve	lopment									
				•				•				
12. Purpose of the	project						13. Expe	cted Benefit	s/Outcom	es		
Bus transport se		e essent	tial for Cul	oans. T	nerefore. it	is	• The le	vel of safety	for bus pa	assenge	ers will be impr	oved.
important to co								-	•	_	nuously provide	
their daily lives.	•	J						•				
 In this regard, it 	is necess	ary to p	revent bu	s drive	rs and							
passengers from	າ infectioເ	us disea	ises such a	s COVI	D-19.							
• It is also essenti	al to conti	inuousl	y welcom	e interr	ational							
tourists safely to	cuba.											
14. Project Descrip	tion						15. Socio	-economic	considerat	ion		
Prepare a manu	al for bus	operat	ors to pre	vent th	em from		1) Socia	l impacts –	positive in	npacts	are expected	
being infected b	y disease	s such a	as COVID-:	L9.			2) Natu	ral Environr	nent – no s	ignifica	ant impacts are	expected
• To increase peo	ple's awaı	reness	about infe	ctious	diseases		3) Pollu	tion – no sig	gnificant in	npacts	are expected	
through public r	elations (PR) usii	ng mass m	edia, t	eaching at		4) Envir	onmental Ir	npact Asse	ssmen	t (EIA) – not red	Juired
schools, SNS, et	c.											
To install COVID	-19 count	termeas	sure equip	ment (installation	of						
partitions, thern	nometer,	disinfe	ctant, etc.)								
 Installation of th 	ne contact	tless pa	yment sys	tem (s	mart card,							
mobile phone)												
 Establishment o 	f BCP (Bu	siness (Continuity	Plan) i	n preparatio	on						
for infectious di	seases											
16. Relevant projec	ct(s)											
• RT005, RT009, R	RT010											
						I						
17. Project location	n P	Province	e: All					City:				
•			l				l	· · ·	1			
18. Notes (if any)												
• •												

1. Project Code RT013 2. Project Title Ticketin						g system imp	rove	ment (for re	egional bu	ıs serv	rices)	
3. Implementation	Agency	MITR	ANS				4.	Implement	ation peri	iod		
5. Project cost (bud	dget)	12.5	million CL	JP (500,0	000 USD)			Start	202	2	End	2023
6. Source of financ	e	⊠ St	ate budge	et			fina	ncing agend	cies	☐ Pri	ivate investors	
	⊠ Trans	sport P	lanning	☐ Logi	istics/Carg	0				\boxtimes	Immediate	
	☐ Road	/Bridge	:	⊠ Bus	passenge	rtransport					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Env	ironment			8. Project	:		Short-term	
7. 5000	☐ Aviat	ion		Inst	itution/Re	gulation		Priority			(2024 – 2026)	
	☐ Marit	ime		Rele	evant busii	ness and othe	ers				Medium-term	
											(2027 –	2030)
Γ											1	
	Key Areas			9.	Objective (code)		10. Strategy	(code)		11. Goal (cod	le)
1. Planning and coo	ordination	1										
2. Transport infrast	tructure d	evelop	ment									
3. Environment, safety, and security												
4. Transport service	e and indu	ustry de	evelopme	nt 4.1	L		4.1.1 4.1.1~2					
5. Transport pricing							_					
6. Institutional and	regulato	y deve	lopment									
12. Purpose of the	project					13. Ex	pect	ed Benefits/	/Outcome	!S		
• Due to the exist			-		_					•	assengers will b	e improved.
many people are	_						nun	nber of ticke	et sales cl	erks w	ill be reduced.	
Ticket availabilit	-			_								
the bus passeng	ers not to	wait ir	n the bus t	erminal	s for vacan	t						
seats.												
14. Project Descrip								economic co				
The existing Ulti		-								-	are expected	
 An upgraded E-t 	icketing s	ystem v	will be ins	talled by	the end o					_	ant impacts are	expected
2023.								-		-	are expected	
16. Relevant projec	ct(s)					4) En	viror	nmental Imp	oact Asses	ssmen	t (EIA) – not rec	luired
• RT012												
17. Project location	n P	rovince	e: All					City:				
•		· <u> </u>			_							
18. Notes (if any)												
•												

1. Project Code	RTO:	14	2. Projec	t Title	Sustaina	ble bus f	fleet (D	iana bus) pro	duction			
		Т										
3. Implementation	Agency	MITR	RANS					4. Implement	ation per	iod		
5. Project cost (but	dget)	2.1 b	illion CUP	(82.25	million USD))		Start	202	3	End	2026
6. Source of finance	е	⊠ St	ate budge	t		□ Exte	ernal fir	nancing agend	cies	□ Pr	ivate investors	
	,											
	⊠ Tran	-	_	□ Lo	gistics/Carg	0					Immediate	
	☐ Road	_	9		us passenge	r transpo	ort				(2022 – 2023)	
7. Sector	☐ Railw	-			nvironment			8. Project	:		Short-term	
	☐ Aviat				stitution/Re	_		Priority			(2024 – 2026)	
	☐ Mari	time		R	elevant busi	ness and	dothers				Medium-term	2020)
	<u> </u>										(2027 –	2030)
	Key Areas			(). Objective ((code)		10. Strategy	(code)		11. Goal (cod	de)
1. Planning and co	<u> </u>				. Objective ((couc)		10. 50. 40.05	(code)		11. 0001 (000	
2. Transport infras			ment	1	2.1			2.1.2			2.1.2.3	
3. Environment, sa												
4. Transport servic	e and ind	ustry d	evelopme	nt								
5. Transport pricing	g and reso	ource a	llocation									
6. Institutional and regulatory development												
12. Purpose of the	project					13	3. Expe	cted Benefits,	/Outcome	es		
• Due to the short	_		-		-		The le	vel of service	(LOS) for	bus pa	assengers will b	e improved.
(in provinces otl	her than F	lavana), buses ar	e crov	ded with bu	ıs	Contri	bution to CO2	2 reductio	n is ex	pected.	
passengers.												
• The number of r	medium-s	ized bu	ıses (Diana	buse	s) needs to b	e						
increased.			D'		ar da la ca							
 In addition to the vehicle production 	-				ctric bus							
14. Project Descrip		a neeu	s to be stu	iuieu.		15	5 Socio	-economic co	nsidorati	on		
		oductic	n system	ic ctud	iod and issu						are evaceted	
 The existing Dia are identified. 	na bus pro	bauctic	ni system	is stud	ieu, anu issu	l -	•			•	are expected ant impacts are	avnected
Using local mater	erials to h	uild Dia	ana huses	will in	rease (imno	l -		tion – no sign		_	•	схрестей
substitution).	211013 10 5	ana Die	and buses	•••••	rease (impo	4)		_		-	t (EIA) – not red	nuired
The electrification	on of Diar	na buse	s will be s	tudied		'	, =				. (=,	1
16. Relevant project	ct(s)											
• RT008												
						I						
17. Project location	n F	rovinc	e: All					City:				
•			•				I.					
18. Notes (if any)												

Project for Formulation	of National	Transport	Master	Plan in	the Re	public	of (Cuba
						Fina	I R	anart

Chapter 6

Appendix A3: Rail Transport Sector

 $\boxtimes \, \mathsf{State} \, \, \mathsf{budget} \,$

6. Source of finance

1. Project Code	RW001	2. Project Title	Development of railw a monitoring system	Development of railway operation and management performance indicators a a monitoring system						
3. Implementation Ag	gency UFC	, MITRANS		4. Implement	ation period					
5. Project cost (budge	et) 30 n	million CUP (1.2 mill	lion USD)	Start	2022	End	2026			

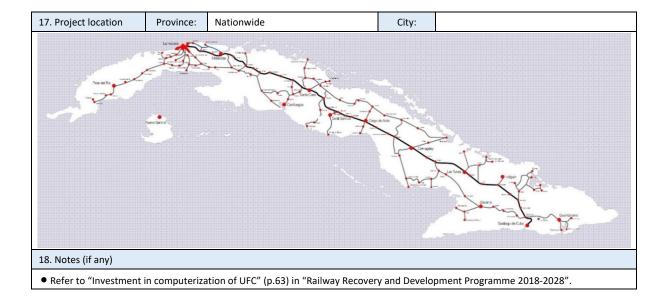
 $\ oxdot$ External financing agencies

 $\hfill\square$ Foreign Investors

	☐ Transport Planning	☐ Logistics/Cargo		
	☐ Road/Bridge	☐ Bus passenger transport		(2022 – 2023)
7. 6	⊠ Railway	☐ Environment	8. Project	⊠ Short-term
7. Sector	☐ Aviation	Institution/Regulation	Priority	(2024 – 2026)
	☐ Port/Maritime	Relevant business and others		☐ Medium-term
	, , , , ,			(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.1, 1.2	1.1.1, 1.2.1, 1.2.2	1.1.1.1, 1.2.1.1, 1.2.1.3,
			1.2.2.1, 1.2.2.2
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
 Develop a single platform (database) for information/data collection and provision using ICT. 	 A database is developed, which can be used to analyze the performance of the railway operation and management.
 Develop railway operation & management performance indicators and a monitoring system to watch and improve the railway operation and management. 	 Accordingly, efficiency in railway operation is improved, which will lead to saving energy and other resources.
14. Project Description	15. Social-environmental consideration
 Update and digitize the existing/available information/data Establish and install an advanced data collection and monitoring system, enabling frequent and periodic data collection and monitoring. Establish a data-sharing system with stakeholders in the rail sector. 	Social impacts – no significant impacts are expected s Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – no need
16. Relevant project(s)	
• Project RW002	



1. Project Code	RW002	t Title	Establish	nment of a	new l	JFC accounti	ing syste	n usin	g ICT			
3. Implementation	Agency	UFC,	MITRANS				4	. Implement	ation per	iod		
5. Project cost (bu	dget)	30 m	illion CUP	(1.2 mil	lion USD)			Start	202	.2	End	2026
6. Source of finance	ce	⊠ St	ate budge	et		⊠ Exter	nal fin	ancing agen	cies	□ Fo	reign Investors	
						•						
7. Sector	☐ Trans ☐ Road, ☑ Railw ☐ Aviat ☐ Port/	/Bridge /ay ion	2	☐ Bus ☐ Env Inst	istics/Carg passenger ironment iitution/Re evant busir	r transport gulation		8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective (code)		10. Strategy	(code)		11. Goal (cod	le)
1. Planning and co	•			1.2		•		1.2.1, 1.2.2,			1.2.1.2, 1.2.1	•
2. Transport infras	tructure d	evelop	ment									
3. Environment, sa	afety, and	securit	у									
4. Transport service	e and indu	ustry d	evelopme	nt								
5. Transport pricin	g and resc	urce a	llocation	5.1				5.1.6			5.1.6.1, 5.1.6	.2
6. Institutional and	d regulator	y deve	lopment									
12. Purpose of the								ted Benefits,	/Outcom	es		
performance of Introduce a mod	Purpose of the project Develop a new accounting system to monitor the financial performance of railway operations and services. Introduce a modern accounting system compatible with an international accounting system/standard.						apture lased of ind me nd oth	ed in a mode on the finance easures to im ner resource	ern accou cial perfo aprove op s. o contrib	nting s rmance peratio ute to	e analysis, it is en efficiency, save the decision-ma	xpected to ving energy
14. Project Descrip	otion							-environmen				
the USA, Spain, Design a moder in Cuba (for UFC) An associated d	 14. Project Description Study modern accounting systems in countries such as Canad the USA, Spain, Mexico, and Japan. Design a modern accounting system that is suitable/workable in Cuba (for UFC). An associated data/information collection system (RW001) is 						Natur Pollut	al Environme ion – no sign	ent – no s iificant in	ignific pacts	pacts are expect ant impacts are are expected t (EIA) – no nee	expected
Capacity building	 developed. Capacity building in the railway business sector, focusing the accounting systems. 											
16. Relevant proje	ct(s)											
• Project RW001												
17. Project locatio	n P	rovinc	e: Nati	onwide				City:				
• UFC												
18. Notes (if any)												
• NA												

1. Project Code	RW003	2. Project Title Development of a database of railcars and other equipment using ICT									T	
3. Implementation	Agency	UFC,	MITRANS					4. Implemen	tation per	iod		
5. Project cost (bu	dget)	30 m	illion CUP	1.2 mi	lion USD)			Start	202	2	End	2026
6. Source of finance	е	⊠ St	ate budget			☐ Ext	ternal fi	nancing ager	ncies	⊠ Fo	oreign Investors	
7. Sector	☐ Trans ☐ Road ☑ Railw ☐ Aviat ☐ Port	/Bridge vay tion	:	☐ Bu☐ Env	gistics/Carg s passenger vironment titution/Re levant busir	r transp gulation	n	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Vou Aroa			0	Objective ('codo)		10 Stratom	, (codo)		11 Goal (sod)	2)
1. Planning and co	Key Areas ordinatior			_	Objective (1, 1.2	codej		10. Strategy		1.3	11. Goal (code 1.1.1.1, 1.2.1° 1.2.3.1	•
2. Transport infras	tructure c	levelop	ment									
3. Environment, sa	fety, and	securit	у									
4. Transport service				t								
5. Transport pricin				_								
6. Institutional and	l regulato	ry deve	lopment									
12 Purnose of the	nroiect					1	13 Fyne	cted Benefits	:/Outcom	20		
Improve the per	Purpose of the project Improve the performance of the existing UFC workshops by developing a database of railcars, rail-related equipment, spare part, etc.						AchiIncreSignreal	eve less time ease the qual ificant saving	spent by ity of repa s in impor	irs. t resou	ams in the work	·
14. Project Descrip	tion					1		al-environme		•		
Computerize the railway worksho Develop softwal technical attent Install necessary	ops. re to infor ion to ma	m repa intain t	iiring timin he level of	g & co safety	nditions an	3	2) Natu 3) Pollu	iral Environm Ition – no sig	ent – no s nificant im	ignific pacts	pacts are expect ant impacts are are expected at (EIA) – no nee	expected
communication information of s	systems b tock, etc.	etwee	n the work	shops		е						
 Training of UFC skills of ICT 	worksho	o staff t	o increase	knowl	edge and							
16. Relevant project(s)												
• RW001, RW002												
17. Project location	n P	rovince	e: Natio	nwide				City:	Cities w	here a	II workshops	
• UFC			•									
18. Notes (if any)												
• Refer to "Invest	ment in co	ompute	erization of	UFC"	p.63) in "Ra	ailway F	Recover	y and Develo	pment Pro	ogram	me 2018-2028".	

1. Project Code	1. Project Code RW004 2. Project Title Computerization of railway operation planning, control, and monitoring												
					33			,			6,		6
3. Implementation	Agency	UFC, I	MITRANS					4. Im	nplement	tation per	riod		
5. Project cost (but	dget)	250 m	nillion CU	P (10 n	nillion USD)			S	itart	202	27	End	2030
6. Source of finance	e	⊠ Sta	ite budge	t		⊠ E:	xternal fi	inanc	ing agen	cies	☐ Fo	reign Investors	
7. Sector	☐ Trans ☐ Road ☐ Railv ☐ Aviat ☐ Port	/Bridge vay	-	□ Bi □ Er In	ogistics/Cargus passenge vironment stitution/Replevant busi	er trans egulatio	on	F	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas				. Objective ((code)			Strategy	/ (code)		11. Goal (cod	
Planning and coo Transport infrast			mont		.2 .4			2.4	.2, 1.2.3			1.2.2.1~2, 1.2 2.4.1.1	2.3.1
3. Environment, sa					.4			2.4	•.1			2.4.1.1	
4. Transport servic				nt 4	.2, 4.3			4.2	.6, 4.2.8	, 4.3.1, 4.	3.4	4.2.6.1, 4.2.8 4.3.4.1~3	.1, 4.3.1.1,
5. Transport pricing	g and reso	ource all	ocation										
6. Institutional and	l regulato	ry devel	opment										
12. Purpose of the	2. Purpose of the project								Benefits	/Outcom	es		
monitoring, and safety. • Upgrade FERRRO increase the spe	 Upgrade FERRRONET (communication system of UFC) to increase the speed and volume of data transactions 							-		iin operat		mproved	
	tion						15. Socia	al-env	vironme	ntal consi	deratio	n	
other countries Plan and design system Plan and design Plan and design Detailed design	(2022~2026) 14. Project Description Study modern train operation monitoring & control systems other countries Plan and design a computerized train operation monitoring							ıral Eı ıtion	nvironm – no sigr	ent – no s nificant in	significa npacts a	pacts are expect ant impacts are are expected t (EIA) – no nee	expected
monitoring & co Construction of			n contra	Loopto	r								
Installation of the state		-	חו נטוונוט	cente	1								
Training of the s	-		nneration	contr	ol center								
16. Relevant project		ic train (эрстиног	r correr	or cerreer								
• RW001, RW002													
, , , , , , , , , , , , , , , , , , , ,													
17. Project location	n F	rovince	: Nati	onwide	<u> </u>			(City:				
• UFC										I.			
18. Notes (if any)													

• Refer to "Expansion of GSM-R to other mainline and branch line" (p.58), "Investment in the communication system for Mariel line" (p. 60), and "Investment in computerization of UFC" (p. 63) in "Railway Recovery and Development Programme 2018-2028".

1. Project Code	RW005		2. Project	Title	Updating	g the Rai	ilway S	ector's 5-Year	Develop	ment P	lan	
3. Implementation	n Agency	UFC,	ATF, MITRA	NS				4. Implement	ation per	iod		
5. Project cost (bu	dget)	75 mi	illion CUP (3	millic	on USD)			Start	202	4	End	2026
6. Source of finance	ce	⊠ Sta	ate budget			⊠ Exte	ernal f	inancing agen	cies	☐ Fo	reign Investors	
									,			
7. Sector	☐ Trans ☐ Road ☐ Railv ☐ Aviat	/Bridge vay tion	2	☐ Bus ☐ Env	gistics/Carg s passenger rironment titution/Re evant busir	r transpo	1	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas				Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)
Planning and co Transport infras			ment	1.3	3			1.3.1			1.3.1.1	
3. Environment, sa												
4. Transport service			•									
5. Transport pricin			•									
6. Institutional and	d regulato	ry deve	lopment									
12. Purpose of the	project					13	3. Expe	ected Benefits	/Outcome	es		
North Coast Are	 Update the railway sector's 5-year development plan Integrate spatial development initiatives (ENOT, ZED Mariel, North Coast Area / Cayos, etc.) and planned economic developments and investments into the railway developmen plan. 						• Im	•			resources in th	
14. Project Descrip	otion							al-environmer				
							incre sect) Natu pror) Pollu) Envi	eased busines or ural Environmonoting the use ution – no sigr	s opportu ent – posi e of railwa iificant im pact Asses	nities/j tive im y pacts a	t (EIA) – SEA (St	es in the rail
17 Desired by 1	_	\						C:			All	
17. Project locatio	n F	Province	e: Natio	nwide				City:			All major cities	
• UFC												
18. Notes (if any)												
● NA												

1. Project Code	RW006		2. Projec	t Title	Feasibili	ty Stı	udy on the	Airport Line (José Mar	tí airpo	ort and Havana)	
3. Implementation	Agency	UFC,	ATF, MITR	ANS				4. Implement	ation per	iod		
5. Project cost (bu	dget)	75 mi	llion CUP	(3 millio	on USD)			Start	202	7	End	2029
6. Source of finance	ce	⊠ Sta	ate budge	t		\boxtimes	External fi	nancing agend	cies	□ Fo	reign Investors	
						,			,			
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Avias	/Bridge vay tion		☐ Bu ☐ Env Ins	gistics/Carg s passenge vironment stitution/Re levant busi	r trar gulat	tion	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Voy Aron	•		0	Objective	codo	.1	10 Stratogy	(codo)		11 Goal/sad	2)
1. Planning and co	Key Areas			1.	Objective (code	2)	10. Strategy 1.3.1	(code)		11. Goal (cod	2)
2. Transport infras			ment		<u> </u>			1.5.1			1.5.1.1	
3. Environment, sa												
4. Transport service	e and ind	ustry de	evelopme	nt 4.	1			4.1.6			4.1.6.1	
5. Transport pricin	g and reso	ource al	location									
6. Institutional and	d regulato	ry deve	lopment									
12. Purpose of the project To study the technical, economic, and financial feasibility of the Airport Line between Jose Marti International Airport and Havana 14. Project Description Natural condition and topographic study Socio-economic study Social consideration and environmental study Demand forecast Passenger rail operation plan Preliminary design of rail infrastructure, stations, and inter-						the	 Improvement High-lyisiton Mitigation Social moderedule poss Naturast Pollus 	rs ation of vehicular al-environment al impacts — pal shift from rection of trafficibility of land a tral Environmente, etc., are expetion — no sign	port serv ular trafficatal considerity in the considerity in the congest acquisition and transport in the congest acquisition in the congest difficant in the congest difficant in the congest acquisition and the congest difficant in the congest acquisition and the congest acquisition acquisition acquisition acquisition and the congest acquisition a	vices ices fo c cong deration pacts port to ion and se, vibr uring a	are expected, so o rail transport a d accidents, wh resettlement ration, pollution and after constru	uch as a and ile there is a due to action work.
17. Project locatio	n F	Province	: Hava	na				City:			Havana	
• UFC												
18. Notes (if any)												
• NA												
<u> </u>												

1. Project Code	RW007		2. Proje	ct Title	Feasibil	ity Stι	udy on the	Airport Line	extension	from I	Havana to Varad	lero
	•											
3. Implementation	Agency	UFC						4. Implement	tation per	riod		
5. Project cost (but	dget)	75 m	illion CUF	P (3 mil	lion USD)			Start	202	27	End	2029
6. Source of finance	e	⊠ St	ate budg	et			External fi	nancing agen	cies	□ Fo	reign Investors	
										<u>l</u>		
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Aviat	/Bridge vay tion		□ B □ Ei	ogistics/Cargus passenge nvironment nstitution/Re elevant busi	er trar	tion	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas				9. Objective	(code	2)	10. Strategy	(code)		11. Goal (cod	e)
1. Planning and co				1	L.3			1.3.1			1.3.1.1	
2. Transport infras		-										
3. Environment, sa	•		•					4.1.6			4.1.6.1	
Transport service Transport pricin			•	ent 2	1.1			4.1.6			4.1.0.1	
6. Institutional and												
o. matrational and	тедини	ry acve	юртист									
	1. Purpose of the project To study the technical, economic, and financial feasibility of							cted Benefits	/Outcom	es		
	To study the technical, economic, and financial feasibility of the Airport Line between Jose Marti International Airport and						• High-l		sport serv	ices fo	r international t	ourists and
13. Project Descrip	tion							al-environmer				
13. Project Description Natural condition and topographic study Socio-economic study Social consideration and environmental study Demand forecast Passenger rail operation plan Preliminary design of rail infrastructure, stations, and intermodal facilities (station square, etc.) Preliminary design of rail coaches (electrified train) Preliminary design of train operation and communication systems Construction plan Cost estimates Economic and financial analysis 15. Relevant project(s) RW006							mod redu poss 2) Natu wast 3) Pollu	al shift from r ction of traffi ibility of land iral Environmo e, etc., are ex ition – no sigr	coad trans c congest acquisition ent – Nois pected d nificant in	sport to ion and on and se, vibr uring a	ation, pollution nd after constru	and ile there is a due to uction work.
									Ī			
16. Project location	n F	Province	e: Hav	/ana, N	lajabekes, N	1atan:	zas	City:	Havana	, Mata	nzas, Varadero	
• UFC												
17. Notes (if any)												
•												
					·							

1. Project Code	RW008	2. Proje	2. Project Title Feasibility Study on the rehabilitation and extension of the railways to the northern key development areas, including Villa Clara, Ciego de Avila, Camaguey, and Holguin									
3. Implementation		UFC, MITR				4.	Implement	· 				
5. Project cost (but	• ,		-	million USD)			Start	2024		End	2026	
6. Source of financ	e	⊠ State bu	udget			fina	ncing agend	cies	□ Fo	reign Investors		
			•									
7. Sector	☐ Road/ ☑ Railw ☐ Aviat	ray		Logistics/Cargo Bus passenger Environment Institution/Reg Relevant busing	transport ulation	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
						1				T		
	Key Areas			9. Objective (c	ode)		. Strategy (code)		11. Goal (code	e)	
1. Planning and coo				1.3		1.3	3.1			1.3.1.1		
Transport infrast S. Environment, sa		•										
4. Transport servic	-		nment	4.1		4.1	1.6			4.1.6.1		
5. Transport pricing		· ·										
6. Institutional and	regulator	y developme	ent									
12. Purpose of the	project				13. Exp	ecte	ed Benefits/	Outcome	S			
 To Carry out tec regarding the co destinations, inc 	soci • Incr	o-ec	onomic dev d revenue f	elopment	of th	ucture and serve e central-easter ers (internationa	n region					
14. Project Descrip	tion				15. Soc	cial-e	nvironmen	tal consid	eratio	n		
14. Project Description Natural condition and topographic study Socio-economic study Social consideration and environmental study Demand forecast Passenger rail operation plan Preliminary design of rail infrastructure, stations, and intermodal facilities (station square, etc.) Preliminary design of rail coaches (electrified train) Preliminary design of train operation and communication systems Construction plan Cost estimates Economic and financial analysis 16. Relevant project(s) N/A						odal s luction ssibil tural ste, o llutio	shift from ro on of traffic lity of land a Environme etc., are exp on – no sign	oad transp congestion acquisition ent – Noise pected du ificant imp	oort to on and n and e, vibr ring a pacts	are expected, so pail transport a discribents, who resettlement ration, pollution and after construare expected troid (EIA) – needed	ind ile there is a due to	
			Villa Cla	ra, Ciego de Ávil	<u> </u>			Canta	Clara	Ciego do Ávila	Camaguer	
17. Project location	n P	rovince.		ra, Ciego de Avii ey, Holguín	a,		City:	Santa	cidrā,	Ciego de Ávila, Holguín	camaguey,	
• UFC												
18. Notes (if any)												
•												

1. Project Code	RW009	2	. Project	Title	Feasibili	ity Stu	dy on Cor	nmuter Rail	Services D	evelop	ment in Havana	1
					•							
3. Implementation	Agency	UFC, AT	F, MITRA	NS				4. Impleme	ntation per	iod		
5. Project cost (bu	dget)	75 millio	on CUP (3	3 millio	n USD)			Start	202	.4	End	2026
6. Source of finance	e	⊠ State	budget			⊠E	External fi	nancing age	ncies	☐ Fo	reign Investors	
7. Sector	☐ Road ⊠ Railv ☐ Avia	,		☐ Bus ☐ Env Inst	gistics/Carg passenge ironment titution/Re evant busi	er trans	ion	8. Proje Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
		_			Objecti a A	/l - \		40.611.	- (d-)		44 Cool (cod	1 - X
1. Planning and co	Key Areas			9.	Objective ((code)		10. Strate 1.3.1	gy (code)		11. Goal (cod	e)
2. Transport infras			ent	1.3	•			1.5.1			1.5.1.1	
3. Environment, sa		•										
4. Transport service			elopment	: 4.1	L			4.1.5			4.1.5.1	
5. Transport pricin		•	•									
6. Institutional and	l regulato	ry develop	oment									
12. Purpose of the	project						13. Expe	cted Benefi	ts/Outcom	es		
services in Hava trains • To carry out a st	 To carry out a feasibility study on the commuter rail transpor services in Havana by using the existing rail infrastructure and 							eved commu evel rail trains rs ation of vehi	nsport serv	ices foi	r international t	ourists and
14. Project Descrip	tion						15. Socia	al-environm	ental consi	deratio	n	
Natural condition	n and top	ographic	study								are expected, s	
Socio-economic	-	•	•								rail transport a	
Social consideration	ition and	environme	ental stud	dy					•		resettlement	
Demand forecas	st										ation, pollution	
Passenger rail o	peration p	olan									nd after constru are expected	iction work.
 Preliminary desi modal facilities 	-			ions, a	and inter-						t (EIA) – needed	I
Preliminary des	ign of rail	coaches (electrifie	d train)							
 Preliminary design systems 	ign of trai	n operatio	on and co	mmun	ication							
Construction plan	an											
• Cost estimates												
Economic and fi	nancial ar	nalysis										
16 Relevant projec	t(s)											
• RW005												
17. Project locatio	n F	rovince:	Havar	na				City:	Havana			
• UFC	•		•						•			
18. Notes (if any)												

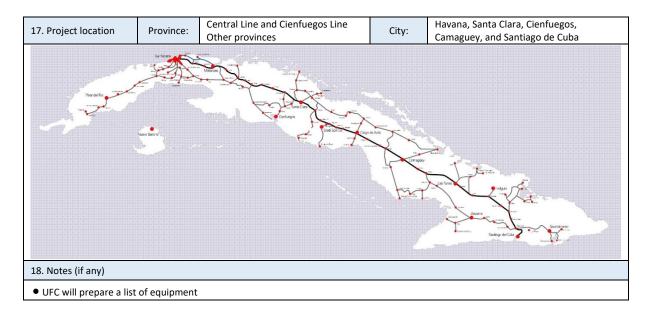
1. Project Code	RW010		2. Projec	Title	Moderni	ization	of track	inspection	and mainte	enance	planning system	ı
		ı										
3. Implementation	Agency	UFC,	MITRANS				4	4. Implem	entation pe	riod	, ,	
5. Project cost (but	dget)	37.5	million CU	P (1.5 n	nillion USD)		Start	20:	22	End	2025
6. Source of finance	e	☐ St	ate budge			⊠ E	xternal fir	nancing ag	encies	□ Fo	oreign Investors	
7. Sector	☐ Trans ☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge ay ion		☐ Bus	gistics/Carg s passenger ironment titution/Re evant busir	r trans gulatio	on	8. Proj Priorit			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
											1	
	Key Areas			9.	Objective ((code)		10. Strate	egy (code)		11. Goal (cod	e)
1. Planning and co												
2. Transport infras				2.1	L			2.1.4			2.1.4.1, 2.1.4.	2
Environment, sa Transport service			•	+								
5. Transport pricing												
6. Institutional and												
											•	
12. Purpose of the	project						13. Expe	cted Benef	fits/Outcom	es		
 12. Purpose of the project To develop a modern rail track inspection method and system To develop an advanced diagnostic system of track condition and other rail facilities To develop a planning system for rail track maintenance work and resource allocation using ICT. 						1	mainteEfficieran adeEfficierand leImprov	enance. nt use of a equate diag nt improve ngthening	ppropriate gnosis ement of th of their life	devices e techr	nan resources for s and technologic nical condition of dvanced knowle	es to make the tracks
14. Project Descrip	tion								nental cons	ideratio	on	
 Review and eval Study on tracl practices) Investigation 	luate the o	n metl ation o	nod (interr f the existi	ational	best		 Natur Pollu 	ral Enviror tion – no s	nment - no s significant ir	significa npacts	pacts are expect ant impacts are e are expected at (EIA) – no need	expected
 maintenance planning and execution system Upgrading of track maintenance planning method and system Data collection Track maintenance planning Human Resource Planning Equipment maintenance planning 						m						
Equipment proc	urement p	olan										
16 Relevant projec	t(s)											
• RW008, RW009												
							П					
17. Project location	n P	rovince	e: Area	of EFC	and EFCE			City:	Santa (Clara ar	nd Camaguey	
18. Notes (if any)												

	1	1										
1. Project Code	RW011		2. Projec	t Title	Moderni	ization	of rail b	idge inspecti	on, maint	enance	e, and rehabilita	tion method
3. Implementation	Agency	UFC, I	MITRANS					4. Implement	tation per	iod		
5. Project cost (bu	dget)	37.5 r	million CU	P (1.5 m	nillion USD))		Start	202	2	End	2025
6. Source of finance	ce	⊠ Sta	ate budge			⊠ Ex	kternal fi	nancing agen	cies	☐ Fo	reign Investors	
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Aviat ☐ Port	/Bridge vay tion		☐ Bus	gistics/Carg s passenger ironment titution/Re evant busir	r transp egulatio	on	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			Q	Objective ((code)		10. Strategy	(code)		11. Goal (cod	۵۱
1. Planning and co	<u> </u>			J. 1	Objective ((code)		10. Strategy	(code)		11. Goar (cod	<u>e, </u>
Transport infras			ment	2.1	L			2.1.4			2.1.4.1, 2.1.4	.2
3. Environment, sa	fety, and	security	/									
4. Transport service	e and ind	ustry de	velopmer	it								
5. Transport pricin	g and reso	ource al	location									
6. Institutional and	d regulato	ry devel	lopment									
12. Purpose of the	project					:	13. Expe	cted Benefits	/Outcome	es		
To develop a modern rail bridge inspection method and system Optimi									naterial ar	ıd hum	an resources fo	r rail track
To develop an a conditionTo develop a plan	• To develop an advanced diagnostic system for rail bridge						maintEfficie an adeEfficie and leImpr	enance. nt use of app equate diagno nt improvem ngthening of	oropriate of the fitter of the fitter in the	devices e techn	and technolog ical condition o	es to make
14. Project Descrip	otion					:	15. Socia	l-environme	ntal consid	deratio	n	
 14. Project Description Review the existing bridge inspection method and system and study international best practices Design a modernized bridge inspection system Procure the bridge inspection equipment Capacity building of UFC staff 16. Relevant project(s) 							 Natu Pollu 	ral Environm tion – no sigr	ent - no si nificant im	gnifica pacts a	pacts are expect nt impacts are are expected t (EIA) – no nee	expected
17. Project locatio	n P	rovince	: Natio	nwide				City:				
	•		•				'					
18. Notes (if any)												
	Refer to "Investment in railway bridges" (p.48), "Conversion of steel bridge to concrete bridge" (p. 50) in "Railway Recovery and Development Programme 2018-2028".											

1. Project Code	RW012		2. Projec	ct Title	Procurer	ment of track	work	machines	and equi	pment		
3. Implementation	Agency	UFC,	MITRANS				4.	Implement	ation per	iod		
5. Project cost (bud	dget)	500 n	nillion CUI	P (20 mil	lion USD)			Start	202	4	End	2028
6. Source of finance	е	⊠ St	ate budge	t			finaı	ncing ageno	cies	□ Fo	reign Investors	
7. Sector	☐ Transport Planning ☐ Road/Bridge ☑ Railway ☐ Aviation ☐ Port/Maritime				ronment itution/Re	rtransport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.1	2.1.1, 2.1.4	2.1.1.1, 2.1.4.1, 2.1.4.2
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
 To mechanize the trackwork of the Central Line and Cienfuegos Line by 2026 To mechanize the trackwork of other lines by 2030 	 Modernized trackwork Improved efficiency and quality of trackwork Improved level of safety Improved speed and the level of riding comfort
14. Project Description	15. Social-environmental consideration
 To procure heavy trackwork machines To procure trackwork equipment such as railway ballast tamping machine, digital track gauge, railway sleeper machine, etc. Training of the trackwork staff (track brigades) 16. Relevant project(s) RW007, RW008 	1) Social impacts – positive impacts are expected, such as improvement of the level of service and safety of railway operation 2) Natural Environment – no significant impacts are expected 3) Pollution – Oil etc., are expected to be incurred by using machines. 4) Environmental Impact Assessment (EIA) – no need



1. Project Code	. Project Code RW013 2. Project Title Workshop for tr							k machine &	equipmer	nt main	itenance		
		,			•								
3. Implementation	tion Agency UFC, MITRANS							4. Implementation period					
5. Project cost (but		250 million CUP (10 million USD)						Start	202		End	2026	
6. Source of finance	e ,		budget	•	· ·	⊠ Ext	ternal fi	nancing agen	cies	☐ Fo	reign Investors		
						ļ							
7. Sector	7. Sector ☐ Transport Planning ☐ Logistics/Carg ☐ Bus passenger ☐ Environment ☐ Institution/Re Relevant busin					r transp	transport 8. Project ulation Priority				Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
1. Planning and co	Key Areas			9. (Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)	
			nt	2.1				2.1.1, 2.1.4			2.1.1.1, 2.1.4.	1. 2.1.4.2	
	Transport infrastructure development 2.1 Brivironment, safety, and security							2.2.2, 2.2.			2.1.1.1, 2.1. 1.1, 2.1. 1.2		
4. Transport servic	e and ind	ustry devel	opment										
5. Transport pricing	g and reso	ource alloca	ation										
6. Institutional and	l regulato	ry developi	ment										
12. Purpose of the	project					1	.3. Expe	cted Benefits	/Outcom	es			
 Build a worksho and equipment 	p for mai	ntenance o	f the tra	ickwor	k machine		Improve the quality of maintenance work						
Consolidate the	existing (scattered)	mainter	nance v	vorks at a		 Improve the productivity of workshop staff Longer life of trackwork machines and equipment 						
single workshop		,				"	Longe	r lite of track	work ma	cnines	and equipment		
 Maintain the co equipment to do 			-	ork ma	achines an	nd							
14. Project Descrip	tion					1	15. Social-environmental consideration						
 Feasibility study on the workshop for maintenance of trackwork machines and equipment Detailed design and cost estimates Building the workshop Procurement of maintenance machines Training of the workshop staff 16. Relevant project(s) RW007, RW008 					2	 Social impacts – positive impacts are expected, such as improvement of the level of service of the railway and increased job opportunities Natural Environment – no significant impacts are expected Pollution – Oil etc., are expected to be incurred by using machines. Environmental Impact Assessment (EIA) – needed at the selected location for the workshop building 					expected vusing		
17 Project location	17 Project location Province: To be determined City:												
An appropriate	An appropriate location for the workshop will be decided based on the feasibility study.												
18. Notes (if any)													

• Refer to "Investment in repairment of workshop" (p.34) "in "Railway Recovery and Development Programme 2018-2028".

1 Project Code	RW014	2 Drais	at Titla	Feasibilit	ty Study and E	tudy and Detailed Design of the Central Line Rehabilitation and						
1. Project Code RW014 2. Project Tit			ect ritie	Improvement								
3. Implementation	4. Implementation				ition peri	eriod						
5. Project cost (bu	JP (10 m	LO million USD)			Start 2023			End	2026			
6. Source of finance			et			finaı	financing agencies					
7. Sector	☐ Road/Bridge ☐ Railway			☐ Logistics/Cargo ☐ Bus passenger transport ☐ Environment ☐ Institution/Regulation ☐ Relevant business and other			8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
4 81	Key Areas		9.	9. Objective (code)		10. Strategy (code)			11. Goal (code	2)		
Planning and co Transport infras			2	2.1			2.1.2, 2.1.4		2.1.2.1, 2.1.2.2,			
2. Hansport minas	ili ucture u	evelopment	2	2.1			1.2, 2.1.4		2.1.4.1, 2.1.4.2			
3. Environment, sa	afety, and	security										
4. Transport service	e and ind	ustry developme	ent									
5. Transport pricin	g and reso	ource allocation										
6. Institutional and	d regulato	y development										
12. Purpose of the	12. Purpose of the project						13. Expected Benefits/Outcomes					
To improve the LOS (level of service) of the Central Line train operation						Increased train speedImproved ride comfort						
To enhance the level of safety						Increased level of safety						
• To attract more cargo and passengers to the Central Line					• Inci	 Increased cargo transport capacity 						
14. Project Description					15. Soc	15. Social-environmental consideration						
 Investigation of the existing condition of the rail track, bridges, signal & communication systems, and other railway infrastructure. 					inci	Social impacts – positive impacts are expected, such as increased non-rail business opportunities and decreased train accidents.						

Feasibility study on ribranch line between Rehabilitation plan obetween Santa Clara Detailed design of the Santa Clara and Cienter 16. Relevant project(s)	Santa Clara and f the Central Lid and Cienfuego e Central Line a	d Cienfuegos. ne and the branch line	2) 3) 4)	Pollution Diesel I Enviror	I Environm on – a risk o ocomotive nmental Im ad acquisiti	nent – Noise, vibration of air pollution if the existing old DMUs or es are used continuously. upact Assessment (EIA) – Necessary ion might be necessary in case of alignment
• RW011						
17. Project location	Central Line, Branch line be Santa Clara and Cienfuegos		en	City:	Havana, Santa Clara, Cienfuegos, Camaguey, Santiago de Cuba	
• Refer to RW011	•			•		<u>. </u>

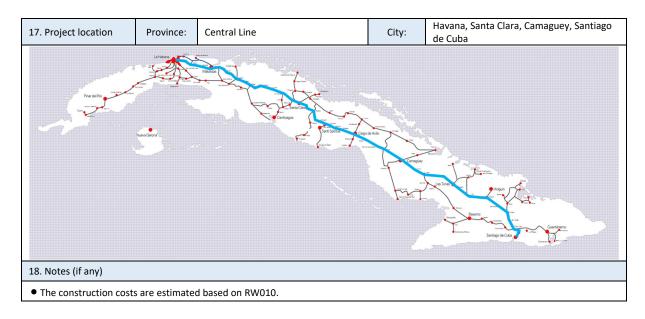
18. Notes (if any)

- Refer to "Railway network" (p.36), "Investment program of rehabilitation and modernization of railway infrastructure" (p. 37) in "Railway Recovery and Development Programme 2018-2028".
- Refer to "Investment in modernization of UFC communication system" (p.57) in "Railway Recovery and Development Programme 2018-2028".

1. Project Code	RW015		2. Projec	ct Title	Rehabilit	abilitation of the Central Line, including the Havana junction							
3. Implementation Agency UFC, ATF, MITR					ANS 4. Implementation period								
5. Project cost (bu	dget)	52.2 l	oillion CU	P (2.1 bil	lion USD)			Start 2026			End	2030 or later	
6. Source of finance 🗵 State budget													
7. Sector	□ Road, ⊠ Railw □ Aviat	vay □ Environment			transport gulation	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)			

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.1	2.1.2, 2.1.4	2.1.2.1, 2.1.2.2,
			2.1.4.1, 2.1.4.2
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12 Purpose of the project	13. Expected Benefits/Outcomes
To improve speed and capacity of train and comfort of train riding	• The maximum train operation speed is increased to 120 km/h
To attract more passengers and cargo to the Central Line train	Track capacity is increased
services	Safety of railway is improved
14. Project Description	15. Social-environmental consideration
To rehabilitate track, embankment, level crossings, bridges, drainage, and other rail infrastructure	Social impacts – positive impacts are expected, such as increased non-rail business opportunities and decreased train accidents.
 ◆ To replace the existing rail with a long rail 	Natural Environment – Noise, vibration
 To install signal and communication systems that are compatible with the GSM-R system (Camaguay – Santiago de Cuba section) 	Pollution – a risk of air pollution if the old DMU or Diesel locomotives are used continuously.
16. Relevant project(s)	Environmental Impact Assessment (EIA) – environmental monitoring is required. Besides, RAP (resettlement action
• RW010	plan) may be needed.



1. Project Code	RW016	2. F	Project T	ITIE	ity Study and as Branch Line		ailed Desigr	n of the So	outherr	Line, Cienfueg	os Line, and
3. Implementation	Agency	UFC, ATF,	MITRAN	S		4.	. Implemen	tation per	riod		
5. Project cost (budget) 296.3 million CUP (11.85 million USD							Start	202	25	End	After 2028
6. Source of finance ⊠ State budget ∑						l fina	ancing agen	ncies	☐ Fo	reign Investors	
7. Sector	☐ Transport Planning ☐ Road/Bridge ☐ Railway ☐ Aviation ☐ Port/Maritime ☐ Logistics/Cargo ☐ Bus passenger trai ☐ Environment ☐ Institution/Regula Relevant business						sport (2022 8. Project Short ion Priority (2024 and others Medi			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	1/- 4	_		0.00	/		40. 611	/ I - \		44 Cooldoo	1 - 1
1. Planning and co	Key Areas			9. Objective	(code)		10. Strateg	y (code)		11. Goal (cod	ie)
2. Transport infras			t	2.1			2.1.2, 2.1.4			2.1.2.1, 2.1.2	2.2,
										2.1.4.1, 2.1.4	1.2
3. Environment, sa	fety, and	security									
4. Transport service		•	•								
5. Transport pricin											
6. Institutional and	regulato	ry developii	ient	<u> </u>							
12. Purpose of the	project				13. Ex	pect	ed Benefits	/Outcom	es		
To improve the		e Southern I	Line, Cier	nfuegos Line, ar		· · ·					
Cárdenas Branc						· ·					
To improve the		•			•	Increased level of safety					
To attract more	cargo and	d passenger	s to the I	ines	•	Increased cargo transport capacity					
14. Project Descrip	tion					15 Social-environmental consideration					
 Investigation of the existing condition of the rail track, bridges, and other railway infrastructure. Feasibility study of the rehabilitation of the Southern Line, Cienfuegos Line, and Cárdenas Branch Line Rehabilitation plan of the Southern Line, Cienfuegos Line, and Cárdenas Branch Line 						1) Social impacts – positive impacts are expected, such as increased non-rail business opportunities and decreased train accidents. 2) Natural Environment – Noise, vibration 3) Pollution – a risk of air pollution if the old DMU or Diesel locomotives are used continuously. 4) Environmental Impact Assessment (EIA) – environmental					
Detailed design of the Southern Line, Cienfuegos Line, and Cárdenas Branch Line							oring is requinay be need		ides, R	AP (resettleme	nt action
16. Relevant proje	ct(s)										
• RW012											
17. Project locatio	n F	Province:		rn Line, Cienfue as Branch Line	egos Line, and	I	City:	Havana Carden		anos, Cienfueg	os, and
• Refer o RW012											
18. Notes (if any)											

• Refer to "Railway network" (p.36), "Investment program of rehabilitation and modernization of railway infrastructure" (p. 37) in

• Refer to "Investment in modernization of UFC communication system" (p.57) in "Railway Recovery and Development Programme

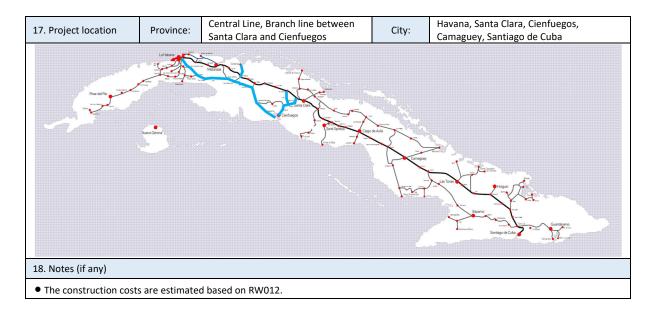
"Railway Recovery and Development Programme 2018-2028".

2018-2028".

1. Project Code	RW017		2. Projec	ct Title	Rehabilit	bilitation of the South Line, Cienfuegos Line, and Cárdenas Branch						
3. Implementation	Agency	UFC,	ATF, MITR	RANS			4. I	mplement	ation per	iod		
5. Project cost (bud	dget)	14.8 billion CUP (8.9 billion USD)						Start	2027		End	2030 and later
6. Source of finance	е	⊠ Sta	State budget				I financing agencies			☐ Foreign Investors		
7. Sector	☐ Trans ☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge /ay ion	y			r transport gulation	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
				I						I.		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.1	2.1.2, 2.1.4	2.1.2.1, 2.1.2.2,
			2.1.4.1, 2.1.4.2
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes					
 To improve the speed and capacity of trains and the comfort of train riding To attract more passengers and cargo to the South Line, Cienfuegos Line, and Cárdenas Branch 	 The maximum speed is increased to 120 km/h Track capacity is increased Safety of railway is improved 					
14. Project Description	15. Social-environmental consideration					
 To rehabilitate track, embankment, level crossings, bridges, drainage, and workshop of the South Line, Cienfuegos Line, and Cárdenas Branch To replace the existing rail with a long rail 	Social impacts – positive impacts are expected, such as increased non-rail business opportunities and decreased train accidents. Natural Environment – Noise, vibration Pollution – a risk of air pollution if the old DMUU or Diesel					
16. Relevant project(s)	locomotives are used continuously.					
• RW012	Environmental Impact Assessment (EIA) – environmental monitoring is required. Besides, RAPresettlementnt action plan) may be needed.					

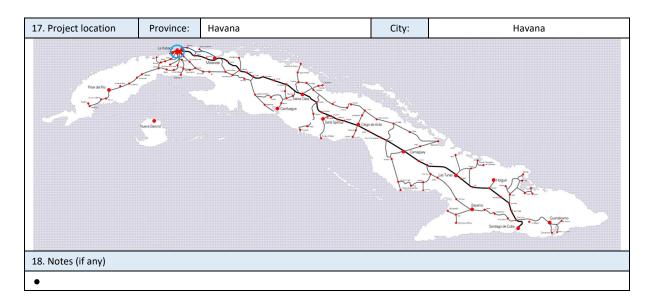


1. Project Code	RW018		2. Projec	t Title	Study on	n CCD (Ce	entro d	le Carga y De	scarga) re	habilita	tion	
3. Implementation Agency UFC, MITRANS							4. Implementation period					
5. Project cost (but	dget)	50 mi	illion CUP	(2.0 mil	lion USD)			Start	202	3	End	2025
6. Source of finance	е	⊠ Sta	ate budge	t		⊠ Exte	ernal fi	nancing age	ncies	☐ Fo	reign Investors	
						,						
7. Sector	☐ Transport Planning ☐ Road/Bridge ☐ Railway ☐ Aviation ☐ Port/Maritime ☐ Logistics/Ci ☐ Bus passen ☑ Environme Institution/ Relevant bu				s passenger vironment titution/Re	r transpo gulation	transport 8. Project			 ✓ Immediate (2022 – 2023) ✓ Short-term (2024 – 2026) ✓ Medium-term (2027 – 2030) 		
	Key Areas			9.	Objective ((code)		10. Strateg	gy (code)		11. Goal (cod	e)
Planning and coo Transport infras			mont	2.2)			22122	2 2 2 2 2	2.4	2211222	1 2 2 3 1
Z. Transport initas	ir detare c	ievelop	mem	2.2	=			2.2.1, 2.2.2, 2.2.3, 2.2.4			2.2.1.1, 2.2.2.1, 2.2.3.1, 2.2.4.1	
3. Environment, sa	fety, and	security	у									
4. Transport servic	e and ind	ustry de	evelopme	nt								
5. Transport pricing	g and reso	ource a	llocation									
6. Institutional and	l regulato	ry deve	lopment									
12. Purpose of the	project					13	B. Expe	cted Benefit	s/Outcom	es		
 Improve efficier operations 	ncy and qu	uality in	loading a	nd unlo	ading cente	er •	Efficiency improvement in loading and unloading cargos					
14. Project Descrip	tion					15	15. Social-environmental consideration					
Cargo handling capacity assessment of the existing CCD Demand analysis of CCD Feasibility study and preliminary design for CCD rehabilitation, including the application of ICTs 16. Relevant project(s) RW016						n, 3)	Social impacts – no significant impacts are expected Natural Environment –Positive impact is expected, such as reduction of emission of greenhouse gas due to modal shift from road transport Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – Needed as a part of the feasibility study					d, such as nodal shift
1111010												
17. Project location Province: Nationwide								City:			Nationwide	
27.11 oject location	. '	. 5 111100	1100					City.				
18. Notes (if any)												
Refer to "Renair	ment of (CD" (n	27) in "Rs	ilway R	ecovery an	d Develo	nmen	t Programme	2018-203	8"		

1. Project Code	RW019		2. Projec	t Title	Construc	ction of CCD F	laba	na 222				
3. Implementation		4. Implementation period										
5. Project cost (budget) 125 million CUP (5.0				9 (5.0 mi	llion USD)			Start	202	6	End	2028
6. Source of finance					☐ External financing agencies ☐ Foreign Investors							
7. Sector	☐ Aviation Institution/R				rtransport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.2	2.2.1, 2.2.2, 2.2.3, 2.2.4	2.2.1.1, 2.2.2.1, 2.2.3.1, 2.2.4.1
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
● To develop CCD Havana 222 as a logistic hub.	 Increase in CCD Habana 222 handling capacity Efficiency improvement in loading and unloading cargos Increase in productivity of CCD services
14. Project Description	15. Social-environmental consideration
Detailed design Construction	Social impacts – no significant impacts are expected Natural Environment –Positive impact is expected, such as reduction of emission of greenhouse gas due to modal shift
16. Relevant project(s)	from road transport
• RW015	Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – Needed as a part of the feasibility study

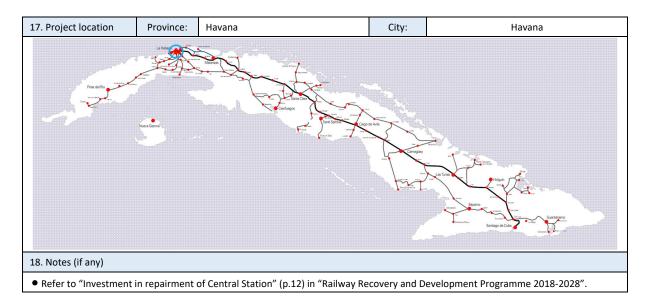


1. Project Code	RW020	2	. Projec	t Title	Study an	d design for	sta	tion rehabili	tation			
2					otaa, a							
2 Implementation	Agongu	UFC, M	ITDANC				,	1 Implement	tation nor	riad		
Implementation Froject cost (but				/2 0 mil	lian LICD)		-	1. Implemen	1	1	End	2025
, ,	• ,			•	lion USD)		1.61.	Start	2023 End 2025			
6. Source of financ	e	⊠ State	e budge	t		⊠ Externa	II fin	ancing agen	icies	□ F0	reign Investors	
7. Sector	☐ Transport Planning ☐ Logistics/Cargo ☐ Bus passenger tra ☐ Railway ☐ Environment ☐ Institution/Regula ☐ Port/Maritime Relevant business				r transport gulation	ers	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas			9.	Objective (code)		10. Strateg	y (code)		11. Goal (cod	e)
1. Planning and coo	ordination											
2. Transport infrast	tructure d	evelopme	ent	2.3	3			2.3.1, 2.3.2			2.3.1.1, 2.3.2	1
3. Environment, sa	•						_					
4. Transport service				nt			-					
Transport pricing Institutional and							1					
o. motitutional and	тевинию	y develop	Jinene	<u> </u>							l	
12. Purpose of the	project					13. Ex	pec	ted Benefits	/Outcom	es		
To rehabilitate a	ınd upgrad	de the exi	isting ra	ilway st	ations	• Inc	reas	sed LOS for a	all types o	f rail pa	ssengers	
• To introduce "ui	niversal de	esign" for	all			• Inc	Increased attractiveness for non-Cuban visitors					
• To increase LOS	(level of s	ervice) fo	r all rail	users		• Inc	Increased fare-box revenue					
● To provide non-	rail busine	ss oppor	tunities	at railw	ay stations	• Inc	reas	sed revenue	from non	-rail bu	siness	
14. Project Descrip	tion					15. Sc	15. Social-environmental consideration					
The station building and facility inventory data collection and analysis Rehabilitation program (2025-2030) Preliminary design and cost estimate for priority ten stations for urgent rehabilitation						2) N 3) P	 Social impacts – positive impacts are expected by improving the facilities and services for disabled and aged people Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – needed 					eople expected
16. Relevant project(s)												
• RW018												
17. Project location	n P	rovince:	Natio	onwide				City:	Nation	vide		
18. Notes (if any)												
• Refer to "Investi	ment in re	pairment	of railv	vay stati	ion" (p.12)	in "Railway	Rec	overy and D	evelopme	nt Prog	gramme 2018-2	028".

1. Project Code	RW021	2. Project	Title The Sec	ond Stage of the	he Central Station of Havana Restoration and Rehabilitation					
3. Implementation	Agency	UFC			4. Implement	ation peri	od			
5. Project cost (budget) 250 million CUP (10 million USD))	Start	2026	5	End	2028	
6. Source of finance	e	State budge	et		inancing agencies			Foreign Investors		
7. Sector	☐ Road, ☑ Railw ☐ Aviat	ray	☐ Logistics/Ca☐ Bus passeng☐ Environmen☐ Institution/I	er transport	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.3	2.3.1, 2.3.2	2.3.1.1, 2.3.2.1
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
 To upgrade the Habana railway station and make it more attractive to passengers, including non-Cuban visitors. To preserve the historical and cultural value of the Havana Station 	Conservation of the cultural and heritage value of the Habana station Increased attractiveness of the Habana station for all, including international tourists
	● Increased LOS for all types of station users/visitors
14. Project Description	15. Social-environmental consideration
 Study the cultural value of the station buildings and other facilities Restoration and rehabilitation plan Design and cost estimate for the restoration and rehabilitation work Construction work Installation of facilities and equipment Relevant project(s) 	1) Social impacts – positive impacts are expected by improving the facility and services for disabled and aged people 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – needed
• RW017	



1. Project Code	RW022		2. Projec	t Title	Research	n & Deve	lopme	nt of the mo	dern railw	ay tech	nnologies	
3. Implementation	Agency	UFC, I	MITRANS					4. Implemen	tation per	iod		
5. Project cost (bu	dget)	125 m	illion CU	P (5 n	nillion USD)			Start	202	2	End	2030
6. Source of finance	e e	⊠ Sta	ite budge	et		⊠ Exte	ernal fi	nancing ager	ncies	☐ Fo	reign Investors	
		Į.										
7. Sector	☐ Road/Bridge ☐ Railway			□ E ⊠ E	ogistics/Carg lus passenger Invironment Institution/Re Belevant busii	r transpo gulation		8. Projec Priority	rt		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
											1	
	Key Areas				9. Objective (code)		10. Strateg	y (code)		11. Goal (cod	e)
Planning and co Transport infras			nont									
3. Environment, sa			ileiit		3.1, 3.2, 3.3			3.2.2, 3.2.3	3.2.4		3.2.2.1, 3.2.3	.1. 3.2.4.1
4. Transport service			velopme		4.3			4.3.1, 4.3.3			4.3.1.1, 4.3.1	
5. Transport pricin	g and reso	ource all	ocation									
6. Institutional and	d regulator	ry devel	opment		6.4			6.4.4			6.4.4.1	
12. Purpose of the	project					13	3. Expe	cted Benefit	s/Outcom	es		
Increase technic	cal capacit	y and ca	pability	of MI	RANS and UI	-C •	Incre	ase the num	ber of hig	h-quali	ty technical sta	ff
Study technolog	gies that a	re suital	ole for th	e Cub	an rail sector	•			hnologies	that a	re suitable for t	he Cuban rail
To study electrical	fication of	the trai	n operati	ion			secto					
To study alternation	ative powe	er source	es such a	s hydr	ogen for the	•	Inno	vation in the	rail sector	•		
train operation 14. Project Descrip	otion					15	5. Socia	al-environme	ntal consi	deratio	n	
Establishment of a research & development unit (railway technology observatory) Study R&D agendas in other countries Carry out R&D activities continuously Overseas training program 16. Relevant project(s) RW004						1) 2) 3)	Socia Natu Pollu	al impacts – Iral Environm Ition – no sig	no signific ent – no s nificant im	ant imp ignifications	oacts are expect ant impacts are are expected t (EIA) – no need	expected
17. Project locatio	n P	rovince	Nati	onwic	le			City:				
 Havana, Santiag 	go de Cuba	1										
18. Notes (if any)												

• NA

• N/A

1. Project Code	RW023		2. Projec	t Title	Study or	Rattery-l	lectr	ic Lo	ocomotiv	e and DE	MII (De	eisel Electric Mul	tinle (Init)
1. Project code	1100023		2.110,60	i iiie	Study of	i battery-i	-iecti	IC LC	COMOTIV	e and be	IVIO (DE	iser Electric Ivial	tiple offic)
			==										
3. Implementation	Agency	UFC,	MITRANS				4. Implementation period				1		
5. Project cost (bud	dget)	50 m	illion CUP	(2 millio	on USD)	1			Start	20	124	End	2026
6. Source of financ	e						nal fi	inan	cing ager	ncies	□ Fo	oreign Investors	
7. Sector	☐ Road, ⊠ Railw ☐ Aviat	/Bridge /ay ion	ay ⊠ Environment			r transpor gulation		t 8. Project ⊠ Priority				Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective (code)		10). Strateg	y (code)		11. Goal (cod	e)
1. Planning and coo	ordination	1											
2. Transport infras	tructure d	evelop	ment										
3. Environment, sa	fety, and	security	/	3.2	2			3.:	2.1, 3.2.3	3		3.2.1.2, 3.2.3.	.1
4. Transport service		-		nt									
5. Transport pricing	g and resc	ource al	location										
6. Institutional and	l regulato	y deve	lopment										
12. Purpose of the	project					13.	Expe	ctec	d Benefits	s/Outcor	nes		
As a part of the technologies in a carried out				•	•	•	CC)2 re		reduction	n of the	e use of fossil fue energy matrix.	els)
14. Project Descrip	tion					15.	Socia	al-en	vironme	ntal con	ideratio	on	
Study on technologies related to battery-electric locomotives and DEMU in other countries Feasibility study on the replacement of the existing railcars by battery-electric locomotives and DEMU 16. Relevant project(s) RW022						y 2) 3)	awar Natu redu Pollu	rene Iral E Iction Ition	ess about Environm n of emis n – no sig	SDGs ent – po ssion of g nificant i	sitive in reenho	are expected, so npacts are expectuse gas and NOx are expected it (EIA) –needed	ted, such as
						l.							
17. Project location	n P	rovince	e: Nati	onwide					City:				
• UFC										•			
18. Notes (if any)													

1. Project Code	RW024	2.	. Project	Title	Installat facilities		hotovo	oltaic	systems a	at station	s, level	crossings, and	other railway
					raciiities	•							
3. Implementation	Agency	UFC, MI	TRANS					4. lı	mplement	ation per	iod		
5. Project cost (but		-		(10 mil	llion USD)				Start	202		End	2030
6. Source of finance		State		(==		⊠ Fxt	ternal i		cing agen			reign Investors	
or ocurred or rimane			Zuuget							0.00			
7. Sector	□ Road ⊠ Railv □ Avia	Road/Bridge ☐ Bus p Railway ☐ Envir Aviation ☐ Instit			gistics/Carg passenge vironment titution/Re evant busi	er transp egulation	n	rs	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	V A	_			Ohia ation	/\ / -\		10) (tusts =	. (11 Carl /aas	1-1
1. Planning and co	Key Area			9.	Objective	(code)		10	D. Strategy	(code)		11. Goal (cod	ie)
2. Transport infras			nt										
3. Environment, sa				3.2	2			3.	2.4			3.2.4.1~3	
4. Transport service	e and ind	ustry deve	lopmen	t									
5. Transport pricin	g and res	ource alloc	ation					_					
6. Institutional and	l regulato	ry develop	ment										
12. Purpose of the	project					1	3. Exp	ecte	d Benefits,	/Outcom	es		
 Study and devel solar-powered f other public rail 	acilities to	o rail statio							n of fossil		umptic	on.	
Installation of the	ne solar-p	owered fa	cilities										
14. Project Descrip	tion					1			nvironmer				
 Study on use (decrossings, signal related facilities) Development of powered facilities 	l and com i. f overall in	municatio	n systen	is, and	other rail-	2	Nat redi Poll	ural uctio utior	Environme n of fuel c n – no sigr	ent – Posi origin ene nificant im	itive im rgy. ipacts	pacts are expection pacts are expected t (EIA) – no nee	cted, such as
 Feasibility study facilities 	in the in	stallation o	of the so	ar-pov	vered								
 Procurement an and equipment 	nd installa	tion of the	solar-p	owered	d facilities								
16. Relevant proje	ct(s)												
• RW022													
17. Project location	n [Province:	Natio	nwide					City:				
18. Notes (if any)													
•													

1. Project Code	RW025	2. Proje	ct Title	Safety in	fety improvement of level crossings							
3. Implementation	Agency	UFC, MITRANS		4. Implementation					n period			
5. Project cost (bu	dget)	42 million CUP (1.68 million USE				St	art	202	2	End	2026	
6. Source of finance	e	State budget ■ Contact				financii	ng agenc	ies	☐ Fo	oreign Investors		
7. Sector	☐ Road, ☑ Railw ☐ Aviat	<i>r</i> ay	ridge ☐ Bus passenge ☐ Environment ☐ Institution/Ro			Р	. Project riority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security	3.1	3.1.2	3.1.2.1
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
To improve the safety of level crossing and reduce the accidents	Increased level of safety at the level crossingsDecreased accidents
14. Project Description	15. Social-environmental consideration
 74 level crossings of the Central Line shall be renovated by installing a modern protection system 10 level crossings in Havana shall be renovated by installing a modern protection system 	1) Social impacts – Positive impacts are expected by improving the safety of railway 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need
16 Relevant project(s)	
•	



1. Project Code	RW026		2. Projec	t Title	Security	improve	rovement of cargo storage, handling, and transportation						
3. Implementation	3. Implementation Agency UFC, MITRANS							4. Impleme	ntation pe	riod			
5. Project cost (but	dget)	75 million CUP (3.0 million USD)						Start	202	24	End	2026	
6. Source of finance	6. Source of finance ⊠ State budget □						ernal fi	nancing age	ncies	☐ Fo	reign Investors		
7. Sector	□ Road, ⊠ Railw □ Aviat	/Bridge /ay ion	ay ☐ Environment			r transpo		8. Project Priority			☐ Immediate (2022 – 2023) ☑ Short-term (2024 – 2026) ☐ Medium-term (2027 – 2030)		
	Key Areas			9.	Objective ((code)		10. Strate	gy (code)		11. Goal (cod	le)	
Planning and coo Transport infrast			ment										
3. Environment, sa				3.3	3			3.3.1, 3.3.	2		3.3.1.1, 3.3.2	.2	
4. Transport servic												<u>- </u>	
5. Transport pricing													
6. Institutional and	l regulato	y deve	lopment										
12. Purpose of the	project					13	B. Expe	cted Benefit	s/Outcom	es			
• Increase the levinfrastructure, a				-	rgo, railwa	-		ved level of ed damage:	-	ed by v	andalism		
14. Project Descrip	tion							l-environm					
Study security m	neasures t	hat are	e used in o	ther cou	untries	1)		•		•	re expected by	improving	
Design security:	system, fa	cilities	, and equi	pment		21		ecurity leve		•	acilities. ant impacts are	evnected	
 Install the secur centers (CCD), to 			-	•	•	3)	Pollu	tion – no sią	gnificant in	npacts	are expected t (EIA) – no nee		
 Repair and expansion of fences and lighting systems. 													
16. Relevant project(s)													
•													
17. Project location	n P	rovince	e: Nati	onwide				City:	Havana	and th	e other major o	ities	
18. Notes (if any)													
• Refer to "Invest crossings" (p.62			•		_				estment in	protec	tion system at I	evel	

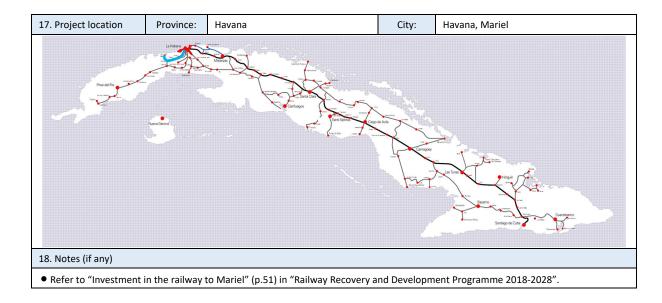
1 Project Code	RW027	2. Project Title	Feasibility Study on the Improvement of passenger train service between
1. Project Code	KVV027	2. Project ritle	Habana and Mariel SDZ (study)

3. Implementation Agency	UFC, MITRANS	4. Implementation period					
5. Project cost (budget)	37.5 million CUP (1.5 million USD)	37.5 million CUP (1.5 million USD)			22	End	2026
6. Source of finance	State budget		financing agend	ies	⊠ Fo	reign Investors	

	☐ Transport Planning	☐ Logistics/Cargo		\boxtimes	Immediate
	☐ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7.6.4	□ Railway	☐ Environment	8. Project	\boxtimes	Short-term
7. Sector	☐ Aviation	Institution/Regulation	Priority		(2024 – 2026)
	☐ Port/Maritime	Relevant business and others			Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development	4.1	4.1.1, 4.1.2, 4.1.3, 4.1.6	4.1.1.1, 4.1.2.1, 4.1.3.1,
			4.1.6.1
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

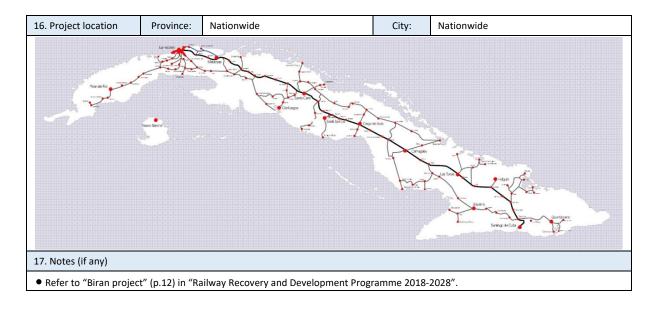
12. Purpose of the project	13. Expected Benefits/Outcomes
• Improve LOS of the passenger train between Habana and the Mariel SDZ.	 Increased rail passengers between Habana and the Mariel SDZ Modal shift from bus to rail Improved financial performance of UFC
14. Project Description	15. Social-environmental consideration
 Study the current passenger transport demand between Habana and the Mariel SDZ Study the current LOS of the passenger transport services between Habana and the Mariel SDZ Feasibility study on the improvement of the passenger train services 	1) Social impacts – Land acquisition and resettlement are possible if re-alignment and station expansion is expected. 2) Natural Environment – Noise, vibration, pollution due to waste, etc., are expected during and after construction work. 3) Pollution – There is a risk of pollution of air and soil water because of exhaust gas from rolling stock, construction machinery and vehicle, and maintenance work.
16. Relevant project(s)	4) Environmental Impact Assessment (EIA) – necessary
•	



1. Project Code	RW028	2. Pro	ject Title	Birán pro	oject - update	of railbus serv	vice in rur	al area	S	
3. Implementation	Agency	UFC, MITRAN	IS			4. Implemen	tation pe	riod		
5. Project cost (bu	dget)	250 million C	UP (10 mil	lion USD)		Start	202	22	End	2030
6. Source of finance	Source of finance 🗵 State budget					financing ager	ncies	□ Fc	reign Investors	
	☐ Road	port Planning /Bridge /av	☐ Bus	istics/Carg passenger ironment	o r transport		ct		Immediate (2022 – 2023) Short-term	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development	4.1	4.1.7	4.1.7.1, 4.1.7.2
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

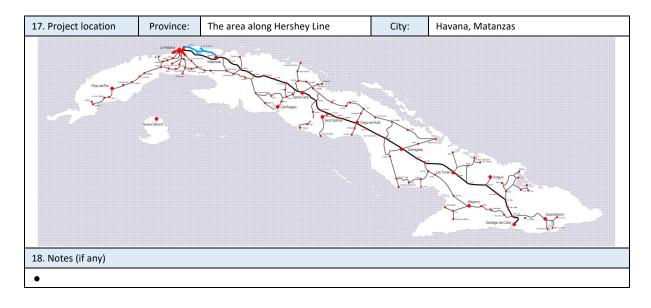
11. Purpose of the project	12. Expected Benefits/Outcomes
To improve the passenger transport service in the rural area To increase the speed and operation frequency	 Increase in passenger volumes compared to those achieved in 2020. Improved level of services of public transport
13. Project Description	14. Social-environmental consideration
To produce 300 light railbuses locally To import necessary parts to produce the railbuses 15. Relevant project(s)	Social impacts – positive impacts are expected, such as enhanced social and economic activities in the rural areas Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected
• N/A	4) Environmental Impact Assessment (EIA) – no need



1. Project Code	RW029	RW029 2. Proje			Rehabilit	tation of the Hershey electrified line							
3. Implementation	Agency	UFC,	ATF, MITR	RANS			4.	Implementa	entation period				
5. Project cost (bu	P (690 million USD)				Start	202	4	End	2030				
6. Source of finance	5. Source of finance State budget										oreign Investors		
7. Sector	Sector					rtransport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security	3.2	3.2.1	3.2.1.1, 3.2.1.2
4. Transport service and industry development	4.1	4.1.1, 4.1.2, 4.1.3, 4.1.4	4.1.1.1, 4.1.2.1, 4.1.3.1,
			4.1.4.1
5. Transport pricing and resource allocation	_		
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Rehabilitate the HERSHEY electric railway to increase carrying capacity, speed, and comfort	• 1 million passengers per year • Transport parcels
14. Project Description	15. Social-environmental consideration
 Investigation of the existing condition of the rail infrastructure, railcars, and other facilities Feasibility study on the rail infrastructure and station rehabilitation Detailed design of the rail infrastructure and station rehabilitation Feasibility study on the power supply, railcars, signal, and communication systems Detailed design of the power supply, railcars, signal, and communication systems Project implementation (procurement and construction) Staff training 	1) Social impacts – positive impacts are expected, such as reduction of accidents and preservation of only electric railway in Cuba 2) Natural Environment – positive impacts are expected, such as reduction of emission of greenhouse gas due to modal shift 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) –necessary
16. Relevant project(s)	
• N/A	



1. Project Code	RW030	7	2. Projec	t Title	Rolling s	stock pro	ocurem	ent	program					
3. Implementation	Agency	UFC, M	ITRANS					4. I	Implementa	ation per	iod			
5. Project cost (bu	dget)	6.5 billi	on CUP	(260 mi	llion USD)				Start	202	2	End	2030	
6. Source of finance	e		e budget			⊠ Ext	ternal f	inar	ncing agenc	ies	☐ Fo	reign Investors		
		<u> </u>												
7. Sector	☐ Road ⊠ Railv ☐ Avia	vay		☐ Bus	gistics/Carg passenge ironment titution/Re evant busi	r transp	n	rs	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas	9.	Objective ((code)	de) 10. Strategy (code) 11. Goal (cod					e)				
1. Planning and coordination														
2. Transport infrastructure development														
	3. Environment, safety, and security							_						
4. Transport servic	4.1, 4.2								.1.4, 4.2.2, .2.8	4.2.3, 4.2	2.6,	4.1.4.1, 4.2.2 4.2.4.1, 4.2.6		
5. Transport pricin	g and reso	ource allo	cation											
6. Institutional and	d regulato	ry develo	pment											
12. Purpose of the	project					1	.3. Ехре	ecte	d Benefits/	Outcome	es			
 To increase pass increasing the n wagons 	_	_	-	-		nd	millio	n aı	to transpor re long-dist the level of	ance tra	velers.	assengers, of w	hich 2.9	
14. Project Descrip	otion					1	.5. Socia	al-e	nvironmen	tal consid	deratio	n		
 Train operation Procurement pl Economic and fi Locomotive Passenger of DEMUs Wagons Staff training 	14. Project Description Demand forecast Train operation plan Procurement plan Economic and financial evaluation Locomotives (possibly battery electric locomotives) Passenger coaches (240 cars) DEMUS Wagons								1) Social impacts – positive impacts are expected due to introducing new rolling stock designed to consider vulner people. 2) Natural Environment –positive impacts such as reduction emission of greenhouse gas are expected. 3) Pollution – positive impacts are expected by introducing rolling stock with a new diesel engine that emits fewer pollutants. 4) Environmental Impact Assessment (EIA) – no need					
17. Project locatio	n F	Province:	Mair	lines a	nd Havana	1			City:					
18 Notes (if any)	8 Notes (if any)													
• Refer to "Acquis	Refer to "Acquisition of 240 cars for national passenger trains								ent in the a	cquisitio	n of pas	senger trains f	or middle	

distance travel" (p.9), "Acquisition DMU for middle distance travel" (p. 10), "Locomotive Equipment" (p.29) in "Railway Recovery and Development Programme 2018-2028".

1. Project Code	RW031		2. Projec	ct Title	Installat	ion of GPS fo	eff	icient train r	monitorir	ng and	operation		
3. Implementation	Agency	UFC					4.	Implement	ation per	iod			
5. Project cost (bu	dget)	125 r	million CU	P (5 mill	ion USD)			Start	202	:3	End	2028	
6. Source of finance	ce	⊠ St	ate budge	et		⊠ External	fina	ancing agend	ies	□ Fo	reign Investors		
		•				*							
7. Sector	7. Sector							8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Area:	ς.		9	Objective	(code)		10. Strategy	(code)		11. Goal (cod	te)	
1. Planning and co	1. Planning and coordination							10. Strategy	(code)		11. Goal (coc	10)	
2. Transport infras													
3. Environment, sa	3. Environment, safety, and security												
4. Transport service		4.3.5 4.3.5.1, 4.					5.2						
5. Transport pricing and resource allocation													
6. Institutional and	d regulato	ry deve	lopment										
12. Purpose of the	project					13. Ex	13. Expected Benefits/Outcomes						
Upgrade the cusystemInstall the GPS-I					_	• Fue		ed efficiency ving	in dispa	tching	trains		
existing rollings						45.6	1	•					
14. Project Descrip								environmen			on pacts are expect	od.	
 Study GPS-base monitoring syst Design an upgra system Design a train or consumption se 	ems in the aded GPS- ondition n	e world based t nonitor	rain opera	ation mo	onitoring	2) Na sav 3) Po	tura ⁄ing Iluti	al Environme of fuel cons on – no sign	nt – Posi umption ificant im	tive in due to pacts	npact is expecte o efficient opera are expected t (EIA) – no nee	d, such as ition	
 Install an upgra- system 	ded GPS-b	ased tr	ain opera	tion mo	nitoring								
 Staff training (treetc.) 	• Staff training (train operation monitoring, train dispatching,												
16. Relevant proje	16. Relevant project(s)												
• RW004													
17. Project locatio	n P	rovince	e: Nati	onwide				City:					
	•		•										
18. Notes (if any)	8. Notes (if any)												
■ Pofor to "Invest	Refer to "Investment in GPS" (n.64) in "Pailway Recovery and D						at Di	rogramma 2	019 2029	0"			

1. Project Code	RW032		2. Projec	t Title	Study or	the carg	o tran	sport efficie	ncv improv	vemen	t		
2.1.10,000.0000			2		otaa, o.	· tile daily		560.000					
3. Implementation	Agency	UFC, N	MITRANS					4. Implemen	itation per	iod			
5. Project cost (bu	dget)	25 mil	lion CUP	1 millio	n USD)			Start	202	.3	End	2025	
6. Source of finance	e	⊠ Sta	te budge			⊠ Exte	rnal fi	nancing ager	ncies	☐ Fo	reign Investors		
						Į.							
7. Sector	☐ Road ⊠ Railv ☐ Avia	vay		☐ Bus	gistics/Carg s passenge ironment titution/Re evant busi	r transpor		8. Projec Priority	ct		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas	<u> </u>		9.	Objective (code)		10. Strateg	v (code)		11. Goal (code)		
1. Planning and co	•				(,						
2. Transport infras	tructure c	developr	ment										
3. Environment, sa	fety, and	security	,										
4. Transport service	4. Transport service and industry development 4							4.2.1, 4.2.2	2, 4.2.5, 4.2	2.6,	4.2.1.2, 4.2.2		
	5. Transport pricing and resource allocation							4.2.8			4.2.5.1~4, 4.2.6.1, 4.2.8.1		
6. Institutional and													
o. ilistitutional and	regulato	iy dever	оринени										
12. Purpose of the	project					13.	. Expe	cted Benefit	s/Outcome	es			
To increase rail of rolling stock		on time	by improv	ing the	failure rat	е •	Cargo transportation volume is increased compared to 202						
14. Project Descrip						15.	. Socia	l-environme	ntal consi	deratio	n		
 Cargo transport Analyze the carge factor, cargo se Update the freighted problems Optimize resour fuels, crews, un 	go flow (m nder, and ght train c rce allocat	novemen recipier operation	nt) data, i nt. n plan bas cerning w	ed on t	he demand	2) d 3)	 Social impacts – no significant impacts are expected Natural Environment –positive impact is expected on greenhouse gas emissions as a modal shift to railway advances. Pollution – Positive impact on the atmosphere if the m shift to railway advances. Environmental Impact Assessment (EIA) – no need 						
Effective coordi	nation wi	th the o	peration o	of CCDs									
 Investment plar improve efficier 	•	otives, fr	eight cars	s, and C	CDs) to								
 Capacity buildir 	g and tec	hnology	transfer t	o UFC s	taff								
15. Relevant proje													
• RW033													
16. Project locatio	n F	Province	: Hava	na, Ma	in Lines			City:	Havana Santiag		el, Santa Clara, (uba	Cienfuegos,	
17. Notes (if any)													
 Refer to "Freight and Developme 		ent in prote	ection and	d surv	eillance syste	em for car	go" (p.	68) in "Railway	Recovery				

1. Project Code	RW033		2. Proj	ect Tit	:le	Study or	n the p	arcel tra	nsp	ort service	improve	ment		
3. Implementation	Agency	UFC							4.	Implement	ation per	iod		
5. Project cost (bu	dget)	25 m	illion CU	IP (1 m	nillio	n USD)				Start	202	:3	End	2025
6. Source of finance	e	⊠ St	ate budg	get			⊠E	xternal f	fina	ncing agen	cies	□ F	reign Investors	
L														
7. Sector	7. Sector Transport Planning Logistics/Car Road/Bridge Bus passenge Railway Environment Aviation Institution/R Port/Maritime Relevant bus							on	rs	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas 9. Objective								1	O. Strategy	(code)		11. Goal (cod	le)
Planning and coordination Transport infractructure development														
2. Transport infrastructure development														
3. Environment, safety, and security								424433 42414				4244424	2 4222	
4. Transport service and industry development 4.2, 4.3 5. Transport pricing and resource allocation 5.1								4.2.4, 4.3.3 5.1.2			4.2.4.1, 4.2.4 5.1.2.1	.2, 4.3.3.2		
6. Institutional and					5.1				3	0.1.2			5.1.2.1	
o. matrational and	regulato	ny acve	юртист											
12. Purpose of the	project							13. Expe	ecte	ed Benefits,	/Outcom	es		
To Increase the	share of t	the raily	wav in th	ne tran	nogen	rtation of		Increased parcel cargo transport by rail						
domestic and in					•					-	-	-	, transport servio	ces
14. Project Descrip	tion							15. Soci	ial-e	nvironmer	ntal consi	deratio	on	
 Feasibility study 	on the p	arcel tra	ansport i	impro	vem	ent optior	ns			-	_		pacts are expec	
Demand forecas	st of the p	oarcel tr	ansport					•					pact is expected use gases due to	-
• Study on the int	ernationa	al best p	ractices	for ra	il-ba	sed parce	el	fron	n ro	ad transpo	rt		_	
transport servic													ected, such as re modal shift fron	
 Study on possib transport service 			with inte	rnatio	nal _l	parcel		tran			si gases i	iue to	inoual silit iron	iiioau
Parcel transport	-							4) Envi	iron	mental Im	pact Asse	ssmen	t (EIA) – no nee	d
Plan and prelim equipment to h	-	_	ecessary	facilit	ies a	and								
Economic and financial analysis of the proposed options														
16. Relevant project(s)														
• RW031														
,														
17. Project location	n F	Province	e: Na	tionw	ide					City:			Nationwide	
	,									-				
18 Notes (if any)	18 Notes (if any)													

1. Project Code	RW034		2. Projec	ct Title	Improve	the cargo	o train	operation dia	agram an	d oper	ation		
	•				•								
3. Implementation	Agency	UFC					4	1. Implement	ation per	iod			
5. Project cost (bu	dget)	25 mil	lion CUP	(1 millio	n USD)			Start	202	:3	End	2025	
6. Source of finance	e	⊠ Sta	te budge	t		⊠ Exte	rnal fir	nancing agen	cies	□ Fo	reign Investors		
		•											
7. Sector	☐ Transport Planning ☐ Logistics/Cargo ☐ Road/Bridge ☐ Bus passenger tr ☐ Environment ☐ Institution/Regu ☐ Port/Maritime ☐ Relevant busines							8. Project Short-term (2024 – 2026)					
					o			10.0	())		44.6.17		
Key Areas 9. Objective (c 1. Planning and coordination								10. Strategy	(code)		11. Goal (cod	le)	
	Transport infrastructure development Brivironment, safety, and security												
4. Transport service			velopme	nt 4.2	2			4.2.2, 4.2.4,	4.2.6, 4.	2.8	4.2.2.1, 4.2.2	2.2, 4.2.4.1,	
5 T											4.2.6.1, 4.2.8	3.1	
Transport pricin Institutional and	_												
o. mstitutional and	regulato	iy deven	эртнепт										
12. Purpose of the	project					13	. Expec	ted Benefits,	/Outcom	es			
To upgrade the ICT To increase carg	_			nning sy	stem by usi	•							
14. Project Descrip	otion					15.	. Social	-environmen	ital consi	deratio	n		
Cargo demand of Freight train op Updating the freight Monitoring/trace Staff training 16. Relevant proje	eration pl eight train cking syste	anning n diagran	n to resp	ond to tl		2)	consid Natur Pollut	dered (capac al Environme tion – no sign	ity develo ent – no s ificant im	opmen ignifica ipacts	aming needs to t of UFC). ant impacts are are expected t (EIA) – no nee	expected	
•													
17. Project location	n F	Province	Nati	onwide				City:					
•								•					
18. Notes (if any)	18. Notes (if any)												
•													

			Digital tr	ransforn	mation	of o	cargo hand	ing and tr	anspoi	tation data col	ection and		
1. Project Code	RW035		2. Projec	t Title	analysis : (HS Code	•	using H	Harı	monized Co	ommodity	Descr	iption and Codi	ng System
3. Implementation	Agency	UFC, N	/ITRANS					4.	Implement	tation per	iod		
5. Project cost (but	dget)	50 mil	lion CUP	(2 millio	n USD)				Start	202	3	End	2025
6. Source of finance	е	⊠ Sta	te budge	t		⊠ Ext	ternal f	fina	ncing agen	cies	□ Fc	reign Investors	
		•				•				•			
7. Sector	7. Sector Transport Planning Road/Bridge Railway Aviation Port/Maritime Logistics/Cargo Bus passenger Environment Institution/Reg Relevant busin						n	rs	8. Project	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	(codo)	ode) 10. Strategy (code) 11. Goal (co					(0)						
Key Areas 9. Objective (cc 1. Planning and coordination								-	io. Strategy	/ (code)		11. Goal (coc	(C)
Transport infrastructure development													
3. Environment, sa		-											
4. Transport servic	e and ind	ustry de	velopme	nt 4.3	3			4	4.3.3			4.3.3.1, 4.3.3	.2
5. Transport pricing	g and reso	ource all	ocation										
6. Institutional and	l regulato	ry devel	opment										
12. Purpose of the	project					1	12. Expe	ecte	ed Benefits,	/Outcome	es		
To reorganize caTo upgrade the	_			_							-	in corresponde internationally	nce with the
13. Project Descrip		•					14. Soci	ial-e	environmer	ntal consid	deratio	n	
Establish a mark Upgrade the car Conduct custom Crago transport 15. Relevant project	go databa ner (cargo service d	owners	g HS code) needs s	(cloud	service)	3) 2	2) Natı 3) Pollı	ura utic	l Environme on – no sigr	ent – no s nificant im	ignifica pacts	pacts are expectant impacts are expected to (EIA) – no nee	expected
16. Project location	n F	rovince	: Hava	na					City:	Havana			
-									,				
17. Notes (if any)													
• Refer to "Invest	ment in co	omputer	rization o	f UFC" (p.63) in "Ra	ailway F	Recove	ry a	and Develor	oment Pro	ogramı	ne 2018-2028".	
•													

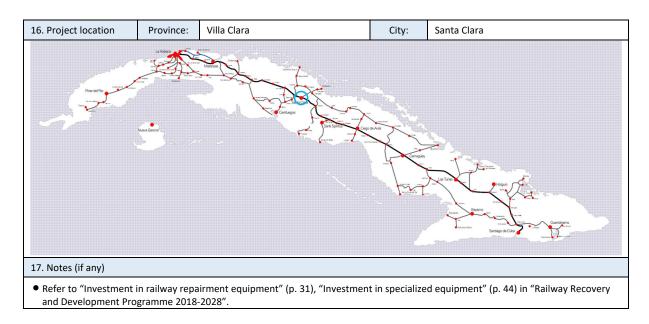
1. Project Code	RW036		2. Projec	t Title	Repair p	rogram of	ailc	ars					
3. Implementation	Agency	UFC, I	MITRANS					4. Implemer	ntation per	iod			
5. Project cost (bud	dget)	1.5 bi	llion CUP	(60 milli	on USD)			Start	202	23	End	2030	
6. Source of financ	e	⊠ Sta	ate budge	t		⊠ Exterr	al fi	nancing age	ncies	☐ Fo	reign Investors		
7. Sector	☐ Trans ☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge /ay :ion	Ü	☐ Bus☐ Envi	ironment titution/Re	r transport	her	8. Proje Priority	ct		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
								Т					
	Key Areas			9. 0	Objective (code)		10. Strateg	gy (code)		11. Goal (cod	e)	
	Planning and coordination Transport infrastructure development												
•				_									
 Environment, sa Transport servic 	nt 4.4			4.4.2, 4.4.4 4.4.2.1, 4.4.4.									
5. Transport pricing	10 4.4				4.4.2, 4.4.	<u> </u>		4.4.2.1, 4.4.4.	<u> </u>				
6. Institutional and	_			-									
		-		•							•		
12. Purpose of the	project					13. E	хре	cted Benefit	s/Outcom	es			
To Carry out the the updated tra	•		e existing	rail flee	t to meet	• Lo	 Increased number of available rail fleets Longer life of the existing rail fleets Reduced investment costs to procure new rail fleets Revitalized rail-related industries 						
14. Project Descrip	tion					15. 9	ocia	al-environme	ental consi	deratio	n		
Diagnosis of the existing rail fleets Prioritize the repair work of the rail fleets Carry out a series of repair work on the rail fleets 16. Relevant project(s)							Natu Pollu	iral Environn Ition – no sig	nent – no s nificant in	significa npacts a	acts are expect ant impacts are are expected t (EIA) – no need	expected	
						•							
17. Project location	n P	rovince	: Majo	or works	hops			City:	Havana	, Cama	guey, Santa Clai	ra	
18. Notes (if any)													
 Refer to "Invest and Developme The project cost 	nt Prograr	mme 20	18-2028"		nent" (p. 3	1), "Investr	nen	t in specializ	ed equipm	ent" (p	. 44) in "Railwa	y Recovery	

	ı												
1. Project Code	RW037		2. Projec	t Title	Moderni	ization of t	he w	orkshops					
3. Implementation	Agency	UFC,	MITRANS					4. Implen	nentati	on per	iod		
5. Project cost (bu	dget)	1.13	oillion CUI	(45 m	illion USD)			Start		202	2	End	2030
6. Source of finance	e	⊠ Sta	ate budge	t		⊠ Exter	nal fir	nancing a	gencie	S	☐ Fo	oreign Investors	
7. Sector	☐ Trans ☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge /ay ion		☐ Bu ☐ En In:	gistics/Carg is passenge vironment stitution/Re levant busi	r transport		8. Pro	•			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Vov Aroas			0	Ohioctivo	(codo)	1	In Strato	mu lene	lo)		11 Goal (code	. 1
1. Planning and co	Key Areas			9	Objective ((code)		LO. Strate	gy (coc	ie)		11. Goal (code	9)
Transport infras			ment										
3. Environment, sa													
4. Transport service				nt 4	4		4.4.1.1~4.4.4.5						 5
5. Transport pricin													
6. Institutional and	l regulator	y deve	lopment										
12. Purpose of the	project					13.	Expe	cted Bene	efits/O	utcome	es		
 To modernize the introducing advintroducing advintroducing 	-		-	quipin	ent,	•	Adj nee Inc Ha	just the c eds. rease the	apabili e qualit	ties of	the fa	teams in the wo	nt and future
14. Project Descrip	tion					15.	Socia	l-environ	menta	consid	deratio	on	
 Diagnosis of the Study on the int workshop and r Prepare a mode 	ernationa elated tec	l best p hnologi	ractices re ies	egardir	g the railwa	1) Social impacts – no significant impacts are expected 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – needed						expected	
equipment													
 Feasibility study 					•								
 Detailed design modernization, 													
Construction of	the new v	vorksho	ps										
16. Relevant proje	ct(s)												
17. Project locatio	n P	rovince	e: Majo	r work	shops			City:	H	lavana,	Cama	aguey, Santa Cla	ıra
18. Notes (if any)													
• Refer to "Invest	ment in re	pairme	ent of wor	kshop"	(p.34) in "F	Railway Re	over	y and De	velopn	nent Pr	ogram	nme 2018-2028	· .

1. Project Code	RW038	2. Project 1	Title Moderni	zation of the v	apori	zation syst	em of the	e fuel t	anks of the Sagu	ıa workshop
3. Implementation	Agency	UFC, MITRANS			4. I	mplementa	ation per	iod		
5. Project cost (bud	dget)	12.5 million CU	JP (0.5 million US	D)		Start	202	3	End	2025
6. Source of finance	e	State budge	et		finan	cing agend	ies	□ Fo	reign Investors	
7. Sector	□ Road, ⊠ Railw □ Aviat	ray	☐ Logistics/Car ☐ Bus passeng ☐ Environment Institution/R Relevant bus	er transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development	4.4	4.4.1	4.4.1.3
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Modernize the facilities for vaporization of fuel wagons in the Sagua Workshop, province of Villa Clara	 Achieve less time spent by the teams in the workshops. Improved quality of repair works
13. Project Description	14. Social-environmental consideration
 Upgrade the steaming system with a new boiler of 660 Kg / h designed for a pressure of 12 Kg / cm2 and working 10 Kg / cm2 for Diesel fuel as well as the supply of all the necessary equipment for this type of service. 	1) Social impacts – no significant impacts are expected 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need
 Replace the existing equipment in poor condition. 	
 Improvement of the waste treatment system. 	
15. Relevant project(s)	
• N/A	



	_													
1. Project Code	RW039	2	2. Projec	t Title	Marketi	ing of ra	ail cargo	and	d passenge	er				
3. Implementation	Agency	UFC						4. I	mplemen	tation per	iod			
5. Project cost (bu	dget)	25 milli	ion CUP	(1 millio	on USD)				Start	202	2	End	2026	
6. Source of finance	e	⊠ State	e budget			⊠ Ex	xternal f	inar	ncing agen	ncies	☐ Fc	reign Investors		
7. Sector	☐ Road ☑ Railw ☐ Aviat	vay		☐ Bus	gistics/Carg s passenge ironment titution/Re evant busi	er trans	on	S	8. Projec Priority	rt		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas			9	Objective ((code)		11	0. Strateg	v (code)		11. Goal (cod	(a)	
1. Planning and co	<u> </u>			J. 1	Objective	(code)		1	o. Strateg	y (code)		11. Goar (cod		
2. Transport infras			ent											
3. Environment, sa	fety, and	security												
4. Transport service			•					4	.4.1			4.4.1.3		
	5. Transport pricing and resource allocation 5.1 6. Institutional and regulatory development 6.2								1.1, 5.1.2	, 5.1.3		5.1.1.1, 5.1.2	.1, 5.1.3.1~2	
6. Institutional and	. Institutional and regulatory development 6.2								.2.1			6.2.1.1		
424 B							42.5		l D Ci	/0				
121. Purpose of th							13 Expected Benefits/Outcomes Achieve 24.2 million passengers, of which 2.9 million are long-							
 Attract more ra from the rail bu Increase non-ra 	siness		_	ncrease	revenue		 Achieve annual increases in income from the international passenger revenue more significant than 2% Achieve annual increases in income from the container car transportation services more remarkable than 2% 							
13. Project Descrip	otion						14. Socia	al-e	nvironme	ntal consi	deratio	n		
 Develop a mark passengers Develop a mark Prepare a plan f businesses such 	eting plan	to attrac	t global (stations	shippin s, etc.) f	g compani	ies	 Social impacts – no significant impacts are expected Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – Not needed 						expected	
15. Relevant proje	ct(s)													
• Project P/M-4.4	.1 - Railwa	ay rolling	stock pr	ocurem	ent progra	am								
16. Project locatio	n P	rovince:	Natio	nwide					City:	Nation	vide			
17. Notes (if any)														
Refer to "Comp	any logisti	ics" (p.65)) in "Rail	way Re	covery and	d Devel	opment	Pro	gramme 2	2018-2028	3".			

1. Project Code	RW040		2. Proje	ct Title	Study on	n the ra	ailway tra	ansport tariff	structure			
3. Implementation	Agency	UFC						4. Implement	ation pe	riod		
5. Project cost (bu	dget)	12.5 m	nillion CL	JP (0.5 n	nillion USD))		Start	202	24	End	2026
6. Source of finance	e	⊠ Sta	te budge	et		□ Ех	xternal fi	nancing agen	cies	☐ Fo	reign Investors	
7. Sector	☐ Road ☑ Railw ☐ Aviat	/ay	J	☐ Bus	gistics/Carg s passenger rironment titution/Re evant busir	r transp egulatio	on	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)
1. Planning and co												
2. Transport infras			nent									
3. Environment, sa		nt										
-	Transport service and industry development Transport pricing and resource allocation 5.1							5.1.1, 5.1.2, 5.1.4, 5.1.5 5.1.5.1				
6. Institutional and	l regulato	ry develo	opment									
12. Purpose of the	project					:	13. Expe	cted Benefits,	'Outcom	es		
 To review the takeeping afforda 		ure to b	e more c	ompetit	ive with		• Tariff transp	-	omes co	mpetiti	ve compared to	road
14. Project Descrip	tion					:	15. Socia	al-environmen	tal consi	deratio	n	
transport ■ To analyze the fapplication of the Coordinate with	To study the pricing of the other transport such as road							ral Environme ition – no sign	ent – no s ificant in	significa npacts a	pacts are expect ant impacts are are expected t (EIA) – no need	expected
16. Relevant project(s)												
• N/A	• N/A											
17. Project location	n P	rovince:	Hav	ana				City:			Havana	
18. Notes (if any)												
•												

1. Project Code	Project Code RW041 2. Project Title Inc							UFC as an in	tegrated	logistic	s operator			
3. Implementation	Agency	UFC					4	. Implement	ation per	riod				
5. Project cost (bu	dget)	75 mi	llion CUP	(3 millio	on USD)			Start	202	27	End	2030		
6. Source of finance	ce .		ite budge		-	☐ Externa	l fin	ancing agen	cies	⊠ Fo	reign Investors			
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Aviat ☐ Port	/Bridge vay tion		☐ Bus	rironment titution/Re	r transport	ers	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)			
							1							
	Key Areas			9.	Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)		
Planning and co Transport infras			ment											
3. Environment, sa														
4. Transport service			nt											
5. Transport pricin	. Transport service and madatry development . Transport pricing and resource allocation 5.1							5.1.2			5.1.2.1			
6. Institutional and	d regulato	ry devel	opment	6.1	L, 6.2		6.1.1, 6.2.1 6.1.1.1, 6.2.1.1							
12. Purpose of the	project					13. Ex	13. Expected Benefits/Outcomes							
 Upgrade the call Cuba 	pacity of U	JFC as a	logistics	service _l	orovider in				_		rator is enhance			
Make UFC a par	t of an int	ernatio	nal shippi	ng com	pany				•	•	,			
14. Project Descrip	otion							-environmer						
 Diagnosis of the service provider 		capacity	and capa	bility as	a logistics	2) N	tura	al Environme	ent – no s	ignifica	pacts are expect ant impacts are are expected			
 Study best prace in the world 	tices on th	ne rail-b	ased logis	tics ser	vice provid			_		•	t (EIA) – no nee	d		
 Prepare a service restructuring pleofistics service 	an toward			_	•									
	 Carry out a pilot project as a logistics provider using the Cent Line and feeder services (trucks) 													
16. Relevant proje	L6. Relevant project(s)													
•														
										-				
17. Project locatio	n P	rovince	: Hava	ana				City:			Havana			
18. Notes (if any)														

1. Project Code	RW042		2. Project	Title	Organiza	ational	restruct	uring of UFC a	and relate	d entit	ies					
3. Implementation	Agency	UFC,	MITRANS					4. Implement	tation per	iod						
5. Project cost (bu	dget)	25 mi	llion CUP (L millio	n USD)			Start	202	2	End	2030				
6. Source of finance	e	⊠ Sta	ate budget			☐ E:	xternal fi	nancing agen	cies	□ Fo	reign Investors					
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Avias ☐ Port	I/Bridge vay tion		☐ Bus ☐ Env	gistics/Carg passenge ironment titution/Re evant busi	r trans	on	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)					
	Key Areas	5		9. (Objective (code)		10. Strategy	(code)		11. Goal (cod	e)				
1. Planning and co	ordinatio	n														
2. Transport infras	tructure c	develop	ment													
3. Environment, sa																
4. Transport service																
5. Transport pricin				C 1	62.62			611621	C 2.1		6111631	1.631123				
6. Institutional and	regulato	ry deve	iopment	6.1	., 6.2, 6.3			6.1.1, 6.2.1,	6.3.1		6.1.1.1, 6.2.1	1, 6.3.1.1 2				
12. Purpose of the	· ·						•	pected Benefi								
	 Increase and upgrade the capacity and performance of UFC ar affiliated companies to achieve financial sustainability 									-	of UFC and affili to provide susta					
14. Project Descrip	otion						15. Social-environmental consideration									
Transfer the Luy Workshop Com		enger C	ar Worksho	p to th	ne EREF		Social impacts – no significant impacts are expected Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected									
 Transfer of the Workshop Com 		ocomot	ive Worksh	op to t	he EREF				_	•	nt (EIA) – no ne	ed				
Transfer of cont FERROMAR Con	npany.	·			J											
 Segregation of a etc.) owning con 				er coac	hes, wagoi	ns'										
Merging the found	ır territori	ial oper	ating comp	anies.												
 Establishment o signaling, compu 	•					gies.										
 Establishment of Transportation 		any spe	cializing in I	Express	5											
 Establishment of management 	of a compa	any spe	cializing in t	rain di	spatching											
• Transform UFC'	s preparat	tion cen	iter into a c	ompar	ıy.											
	 Redefine the structure of the UFC logistics company in line with centralized supply management. 															
• Increase opport	unities fo	r MSME	companie	s.												
16. Relevant proje	ct(s)															
• RW043																
							ı									
17. Project locatio	n F	Province	e: Havar	na				City:	Havana							
								·	1							
18. Notes (if any)																
• Refer to "Invest	ment in c	ompute	rization of	UFC" (p.63) and '	'Specia	al trainin	g centers" (p.	74) in "Ra	ailway	Recovery and D	evelopment				
Programme 201	8-2028".															

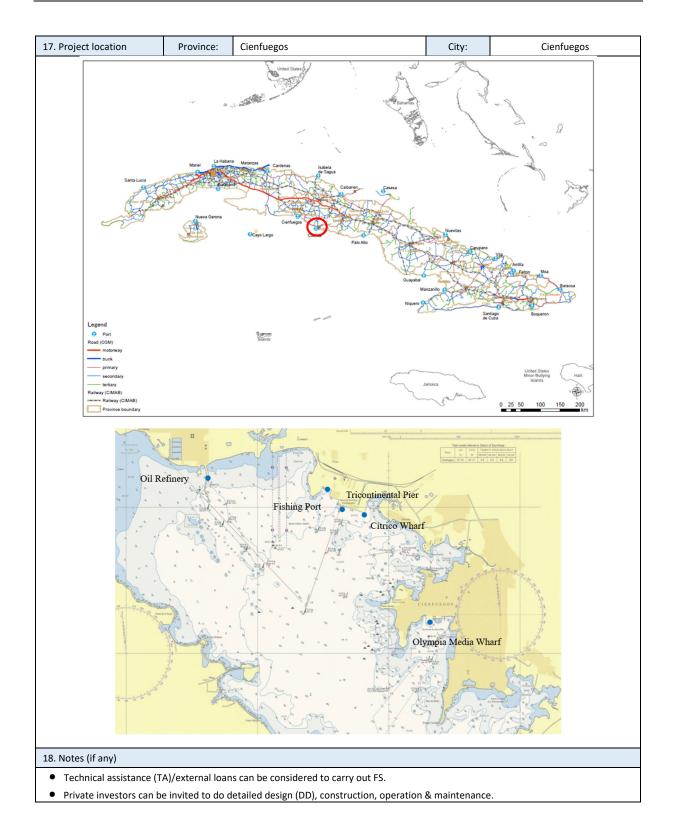
	1				Study or	a the reer	raniz	ation of t	ho nat	ional ra	ilway n	lanning, admin	ictration and		
1. Project Code	RW043		2. Projec	t Title	-	ment syst	-	י וטווטוו	iie iiat	.iOiiai ia	iliway p	iaiiiiiig, auiiiiii	istration, and		
3. Implementation	Agency	ATF, N	MITRANS					4. Imple	menta	tion pe	riod				
5. Project cost (bu	dget)	337.5	million C	UP (1.5	million US	D)		Start		202	22	End	2026		
6. Source of finance	e	⊠ Sta	ate budge	t		⊠ Exte	ernal fi	nancing	agenci	es	☐ Fo	reign Investors			
	☐ Trans	port Pla	anning	□ Lo	gistics/Carg	30						Immediate			
	☐ Road				is passenge	r transpo	rt					(2022 – 2023) Short-term			
7. Sector	□ Railw □ Aviat	,			vironment stitution/Re	egulation		8. Pr	roject ritv			(2024 – 2026)			
	☐ Port/		ne		levant busi	_	other		-,			Medium-term			
												(2027 – 2030)			
	Key Areas			9.	Objective	(code)		10. Str	ategy (code)		11. Goal (cod	le)		
1. Planning and co															
2. Transport infras															
3. Environment, sa		•													
	J. Transport service and industry development J. Transport pricing and resource allocation														
6. Institutional and				6.	1, 6.2, 6.3			6.1.1, 6	5.2.1. 6	5.3.1		6.1.1.1, 6.2.1	.1. 6.3.1.1~2		
		,			_,,		01212, 01212, 0121								
12. Purpose of the	project					13	13. Expected Benefits/Outcomes								
Define the role,	limits, an	d respoi	nsibilities	of eacl	n entity	•	Achie	ve a simp	ole and	l efficie	nt struc	ture of the nat	ional rail		
related to the ra	•	-	_			F,	syster	n with a	transp	arent d	istribut	ion of function	S.		
UFC (OSDE), and ownership, plan															
development, o	peration 8	& maint				ind									
monitoring & er		nt.				45		.1	.	.1	4	_			
14. Project Descrip	otion							al-enviror					tod		
 Study internation Spain, France, G 	-				ch as Mexic	0, 2)	, , , , , , , , , , , , , , , , , , , ,								
Propose a struct			•		•	4)			_		-	: (EIA) – no nee	d		
and duties, with role and the role				en the	regulatory										
Implement the		•		gulator	v Authority	,									
for the railway s				0	,										
16. Relevant proje	ct(s)														
• RW042															
17. Project locatio	n P	rovince	: Hava	ana				City	:	Havana	ı				
18. Notes (if any)															
1 _															

1. Project Code	RW044		2. Projec	ct Title	Upgrad	de train	ning/edu	cati	onal system	in the	rail tran	sport sector		
3. Implementation	Agency	UFC,	MITRANS					4.	Implement	ation pe	eriod			
5. Project cost (bu	dget)	50 m	illion CUP	(2 mill	ion USD)				Start	20)22	End	2026	
6. Source of finance	e	⊠ St	ate budge	t		× I	External	fina	incing agend	ies	□ Fo	reign Investors		
7. Sector	☐ Trans ☐ Road ☑ Railv ☐ Aviat	/Bridge vay tion	9	☐ Bi ☐ Er In	ogistics/Car us passeng uvironment stitution/R elevant bus	er tran t Regulat	ion	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	1/- 4				01::-::	. /	`		10 (1)	/I-\		11 Codline	1 - \	
1. Planning and co	Key Areas			9	. Objective	e (code)	+	10. Strategy	(coae)		11. Goal (cod	ie)	
2. Transport infras			ment					\top						
3. Environment, sa														
4. Transport service	4. Transport service and industry development 5. Transport pricing and resource allocation													
5. Transport pricin	g and reso	ource a	llocation											
6. Institutional and	6.4 Institutional and regulatory development							6	6.4.1, 6.4.2,	6.4.3, 6	5.4.4	6.4.1.1, 6.4.2 6.4.4.1	2.1, 6.4.3.1~2,	
12. Purpose of the	project						13. Exp	ect	ed Benefits/	'Outcon	nes			
To upgrade the Cuban rail sector	_	_		-	em in the		• Incre	ease	ed number o	of qualif	ied staf	f in the rail secto	or	
14. Project Descrip							15. Social-environmental consideration							
 Study the interr training/educat Prepare a comp includes: 	ional syste	ems in	the world		ning that		1) Social impacts – no significant impacts are expected 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need							
- Improveme	nt of facil	ities.												
- Improveme study.	nt and co	mpletio	on of the r	nateria	I base of									
- Elevation of the UFC				vel of t	he professo	ors								
- Increase co education i	nstitution	s.		and h	igher									
- Expand the														
• Installation of n		eration	n simulato	rs										
16. Relevant proje	ct(s)													
● N/A														
17. Project location	n F	Province	e: Hav	ana					City:			Havana		
18. Notes (if any)														
•														

1. Project Code	Project Code RW045 2. Project Title Stu							et (ROA)				
3. Implementation	Agency	UFC					4	1. Implementat	ion peri	od		
5. Project cost (bu	dget)	25 mi	llion CUP	(1 millio	on USD)			Start	2023	3	End	2026
6. Source of finance	ce	☐ Sta	ate budge	t		⊠ Externa	l fin	ancing agencie	es	□ Fo	reign Investors	
7. Sector	☐ Trans ☐ Road ☑ Railw ☐ Aviat ☐ Port	/Bridge vay tion		☐ Bu: ☐ Env	gistics/Cargo s passenger vironment titution/Reg levant busin	transport gulation	ers	8. Project Priority		\boxtimes	Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Vov Aroos			0	Ohioativo (a	aada)		10 Stratage	anda)		11 Cool (ood	۵۱
1. Planning and co	Key Areas			9.	Objective (code)		10. Strategy (code)		11. Goal (cod	e)
	Transport infrastructure development											
3. Environment, sa	Environment, safety, and security											
4. Transport service	e and ind	ustry de	evelopme	nt								
5. Transport pricin	g and reso	ource al	location	5.:	1		5.1.6 5.1.6.1				5.1.6.1	
6. Institutional and	d regulato	ry devel	lopment									
12. Purpose of the	project					13. Ex	рес	ted Benefits/O	utcome	S		
• To study the us	age of unu	ısed lan	d owned	by UFC		ide	ntifi	ied	J		ntial for develor	
14. Project Descrip	otion					15. Sc	cial	-environmenta	al consid	leratic	on	
 To study the unused land owned by UFC. To prepare a land development plan for the unused land To carry out financial analysis Relevant project(s) 						2) N 3) Po	atur ollut	al Environmen ion – no signifi	t – no si cant im	gnifica pacts	pacts are expect ant impacts are are expected t (EIA) – no need	expected
						•						
17. Project locatio	n P	rovince	: Hava	ana				City:			Havana	
18. Notes (if any)	lotes (if any)											

Project for Formulation of National Transport Master Plan in the Republic of Cuba Final Report
Chapter 6
Appendix A4: Port & Maritime Transport Sector

1. Project Code	M001	2. Project Title Development of			of Cruise Pa	Cruise Passenger Terminal in Cienfuegos Port (Plan, Feasibility Study								
3. Implementation	Agency	MITRANS, GEM	1AR			4	. Implement	ation per	iod					
5. Project cost (but	dget)	37.5 million CL	JP (1	1.5 million USD)			Start	202	3	End	2026			
6. Source of finance		State budge				l fin	ancing agend	cies	☐ Foreign Investors					
										- 0				
7. Sector	☐ Road/Bridge ☐ Railway ☐			Dogistics/Cargo Bus passenger Environment Institution/Reg Relevant busin	transport gulation	ers	8. Project Priority			 Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030) 				
	Key Areas			0.01: 1: /			10.00	/ ! \		44.0.1/				
	9. Objective (c	code)		10. Strategy (code)			11. Goal (code)							
Planning and coordination Transport infrastructure development				1.1		-	1.1.3			1.1.3.2				
3. Environment, sa		· ·				1								
4. Transport servic	-	•	nt											
5. Transport pricing														
6. Institutional and	l regulator	y development												
12. Purpose of the						13. Expected Benefits/Outcomes								
Cienfuegos port		<u>.</u>		· ·		 The number of cruise ship visitors is increased and contributes to the acquisition of foreign currencies. 								
tourism develop					ia to t	ne a	acquisition o	r toreign (curren	cies.				
ships.	mmodate	TOTCIBIT LOUITSES	VISIC	ing by cruise										
The city of Cienf	uegos is u	nder developme	nt i	n terms of										
historical avenu	es and bui	ldings to increas	e its	s attractiveness	to									
foreign tourists.	However,	the port passen	ger	terminal for										
cruise ship passo	-	nains an old buil	ding	g with partially										
open-air facilitie					45.6	-1-1	•	1-1	1 1 -					
14. Project Descrip						15. Social-environmental consideration								
Existing facilitiesDemand forecas			ac+\		1 '	Social impacts – NA Natural Environment – Construction phase and eneration								
	•	•	•		1	Natural Environment – Construction phase and operation phase								
Planning and Design - layout plan, conceptual design of facilities							3) Pollution – construction phase and operation phase							
• Cost estimates										t (EIA) – Neede				
Economic and F	inancial an	alysis												
Environmental I		essment (EIA)												
Implementation	plan													
16. Relevant project	ct(s)													

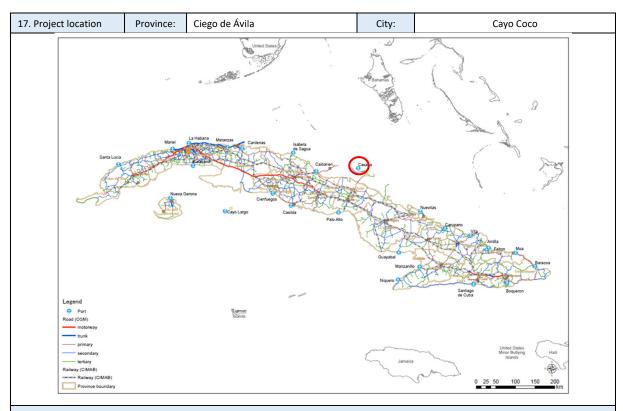


1. Project Code	M002	2. Project T	itle Co	ontainerizati	on of Ir	nternation	al/Domes	tic Cargo T	ransport	(Plan and Fea	sibility Study)			
3. Implementation	Agency	GEMAR, MI	TRANS			4.	Impleme	ntation pe	riod					
5. Project cost (bu		25 million C		lion LISD)		-	Start	20:		End	2025			
			`	11011 030)										
6. Source of finance	æ	⊠ State bu	dget		⊠ Ex	cternal fina	al financing agencies							
7. Sector	7. Sector					oort on nd others	8. Proje Priority		((((((((((((((((((((2022 – 2023) ☑ Short-term (2024 – 2026)				
										(2027 – 2030)				
	Key Area	9. Objectiv	ve (cod	e)	10 Strai	tegy (code)	11. Goal (co	ide)					
1. Planning and co	1.3	10 (000	<i>-</i> /	1.3.2	tegy (couc	,	1.3.2.1							
Transport infras	1.0			2.0.2			1.3.2.1							
3. Environment, sa														
4. Transport service	•	•	ment											
5. Transport pricin														
6. Institutional and														
				•						•				
12. Purpose of the	project					13. Expected Benefits/Outcomes								
analyze the obs container trans The study proposuitable for con The study shoul 14. Project Descrip Data collection Existing cor (internation Existing car Existing car Preliminary stud The efficientransport Identification problems Measures t Measures t	,	• Qualiti 15. Socia 1) Socia 2) Natu 3) Pollu	l-environi l impacts ral Enviro tion – NA	y of cargo mental cor — SIA is no nment — N	nsideratio eeded A	on at (EIA) – EIA is								
EstimationPlan and feasibiA container	recast of costs as lity study rization roary FS on the	containerizationssociated with (FS)	the cont											
17. Project location	n l	Province:	Whole o	country			(City:		NA				
Whole country								-7.		. 7/1				
18. Notes (if any)														
Technical assi	stance (TA	\)/external loa	ns can he	considered	to car	ry out FS								

1. Project Code		M003 2. Project Title Port S				Statistics	tatistics and Database System Development Project								
		ı													
3. Implementation Agency		MITRANS	, GEMA	R				4. I	Implement	ation peri	iod				
5. Project cost (bud	get)	50 million	n CUP (2	million USD))				Start	202	3	End	2026		
6. Source of finance)	State b	udget				nal f	inan	ncing agend	cies	☐ Fo	reign Investors			
		ı			l.										
		nsport Plan	ning	□ Logistics/Cargo □							\boxtimes	Immediate			
		ad/Bridge	J	☐ Bus pass	_		t					(2022 – 2023)			
	☐ Rail	lway		☐ Environn	•	8.			t	\boxtimes	⊠ Short-term				
7. Sector	☐ Avia	ation		Institutio	gulation			Priority			(2024 – 2026)				
	☑ Port/Maritime				t busin	ess and o	other	rs				Medium-term			
												(2027 – 2030)			
Ke	9. Objective (code)					. Strategy (code)		11. Goal (code)						
1. Planning and coordination				1.5				1.5	5.1, 1.5.2		1.5.1.1~2, 1.5.2.1				
2. Transport infrast	ructure	developme	ent												
3. Environment, saf	ety, an	d security													
4. Transport service	and in	dustry													
development															
5. Transport pricing	and re	source allo	cation												
6. Institutional and															
12. Purpose of the	project					13.	13. Expected Benefits/Outcomes								
Establish and op-	erate a	statistical d	latabase	e system to in	nprove	e • E	By sharing the data and information about the port-related								
government plar	nning ca	apability and	d to con	tribute to eff	ficient	f	facilities, and ongoing and scheduled activities, port users, can								
and appropriate	-						improve the transport business								
- Statistical da			_	•			• The port operator(s) can provide services to the port users								
		_		monitoring sy	stem		efficiently and effectively.The planning capability of MITRANS and GEMAR is upgraded.								
- Port facility	and equ	uipment inv	entory	database						-		s and GEMAR is peration can be			
14. Project Descript	ion								nvironmen		_		acilieveu.		
Plan and design									mpacts – N						
	isting p	ort-related	databa	se systems in	other		2) Natural Environment – NA								
countries				,		1 1	3) Pollution – NA.								
- Research on	the ava	ailable port	-related	data		'	4) Environmental Impact Assessment (EIA) – not required								
- Design an in	itial dat	tabase using	g the av	ailable data											
(including da	ata defi	nition and o	coding s	ystem)											
- Design a uni	t to ope	erate and m	nanage t	he database	system	n									
 Implementation 															
- Establish the	unit to	o operate a	nd mana	age the datab	oase										
system															
- Procuremen	t of sof	tware, hard	lware, e	tc., to run th	e										
system															
16. Relevant project(s)															
•															
17. Project location		Provinc	e: V	Whole countr	У				C	City:		NA			
Whole country															
18. Notes (if any)															
Including procur Tochnical assista															

1. Project Code	M004		2 Projec	+ Tit	le	Prepara	tory S	Study to	Intr	oduce Ma	ritir	ne Tra	nspo	ort F	Planning Course	s to		
1. Troject code	171001		2.110,00	,, ,,,		Academ	ic Ins	titutes/C	Colle	eges in Cul	ba.							
		1																
3. Implementation	Agency	MITR	ANS, GEN	1AR					4.	Impleme	ntat	ion pe	eriod					
5. Project cost (bud	dget)	12.5	million Cl	JP (0	.5 m	illion USD)			Start		20	23		End	2024		
6. Source of finance	<u> </u>						ncing age	ncie	ıç	Тг	l Fo	reign Investors						
o. Source of finance		۵ 50	ate buuge					LACCITICI	iiiia	incing age	ricic	.3		110	reign investors			
	✓ T	D			1:	-+: /C												
		-	_		_	_												
			!			_	tran	sport		O Draid								
7. Sector		•								,								
										•								
	△ Port/	iviaritir	ne		Kele	evant busi	ness	and otne	others									
															(2027 – 2030)			
	1/- 1				^ ′	Objective in	/ l :	- 1		10 61 1	. /	! . \			11 6 1/1	1-1		
							(coae	2)			gy (coae)			· · · · · · · · · · · · · · · · · · ·	ie)		
						1			+	1.6.1					1.6.1.1			
Transport infrastructure development Brivironment, safety, and security									+									
3. Environment, safety, and security									-									
•				nt														
Aviation Institution/Re Relevant busin Port/Maritime Relevant busin Port/Maritime Port/Maritime Relevant busin Port/Maritime Polycetive 1. Planning and coordination 1.6 2. Transport infrastructure development 3. Environment, safety, and security 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project To increase quality human resources in the maritime transport sector To provide regular educational and training courses to learn modern maritime transport systems and technologies in the academic institutes, universities, and colleges Invite lecturers and trainers from overseas to provide training at the educational institutes, universities, and colleges 14. Project Description Academic Institute Planning Establish training programs: invite practitioners such as port masters, CFS operators, and scholars from other																		
6. Institutional and	State 12.5 million CUP (0.5 million USD) Start 2023 End 2024																	
							4. Implementation period 1. Implementation period 2024 2024 2024 2024 2024 2025 2023 2025 20											
•								13. Expected Benefits/Outcomes										
To increase qual	To increase quality human resources in the maritime transport							· · · · · · · · · · · · · · · · · · ·										
sector								development of the maritime transport sector.										
To provide regulation	lar educat	ional a	nd trainin	g cou	urses	to learn	the											
	-	-			olog	ies in the												
				-														
							g											
at the education	al institut	es, uni	versities,	and o	colle	ges												
14. Project Descrip	tion																	
Academic Institute	<u> </u>							1) Social impacts – NA										
Planning								2) Nat	tura	l Environr	nen	t – NA	١.					
- Establish tra	aining pro	grams:	invite pra	ctitic	oner	s such as		,										
port master	s, CFS ope	erators,	, and scho	lars	from	other		4) Environmental Impact Assessment (EIA) – not required										
	design cu	ırriculu	ıms and tr	ainir	ng co	urses.												
Budgeting																		
	•	_																
-		s from	overseas	and	in Cı	ıba												
 Implementation 																		
·		cturers	5															
- Recruiting a	pplicants																	
Overseas Training																		
_						ve trainee	es											
		ining, t	ravel cost	, etc														
Implementation																		
16. Relevant projec	ct(s)																	
•																		
17. Project location	า	Provi	nce:	Nho	e co	untry					Cit	y:			NA			
Whole country																		
18. Notes (if any)																		
Technical assista	ance (TA)	can be	considere	d to	carr	y out the	overs	eas train	ning									

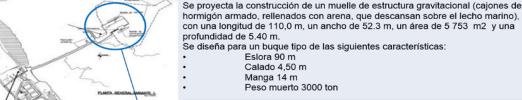
1. Project Code	e M005 2. Project Title Exp							sion and modernization of Casasa Port							
								ı							
3. Implementation		MITRAN							4.	Implement					
5. Project cost (bud	lget)	500 mill	ion CUI	P (20 n	nillion	USD)	ı			Start	202	4	End	2026	
6. Source of finance	е	State	budge	t				rnal t	fina	incing agen	cies	□ Fc	reign Investors		
		sport Plan	ning		gistics	/Carg	0						Immediate		
	☐ Road/Bridge ☐ Bus passenger tr							nsport				(2022 – 2023)			
7. Sector	r □ Railway □ Environment									8. Project			Short-term		
	☐ Aviation Institution/Regul									Priority			(2024 – 2026)		
							ness and	othe	rs				Medium-term		
				<u> </u>								ļ	(2027 – 2030)		
	V A				Obia	- - : /			10) (tuete = . /			11 Caal (aad	- \	
	Key Areas			5). Obje	ctive (code)		10). Strategy (code)		11. Goal (cod	e)	
Planning and coo Transport infrast			ant	1 2	.1				2 .	1.1			2.1.1.1		
3. Environment, sa			.111						۷.,	1.1			2.1.1.1		
4. Transport service		· ·	elopmei	nt											
5. Transport pricing		•	•												
6. Institutional and	regulato	ry develop	ment												
12. Purpose of the	project						13	. Ехр	ecte	ed Benefits,	Outcome	es			
The Casasa po	rt in Cayo	Coco wa	s not ac	ddress	ed in a	ny	•	Cons	tru	ction mater	ial/equip	ment i	n the Cayo Coc	o area can be	
previous Reso	lutions. H	lowever, r	now it is	s expe	cted to	play a			•	rted by coas	•				
vital role in th		•		the no	orthern	area,				-		-	er, supplies for	the Cayo	
namely from \		_	-										oastal ships.		
 The Feasibility made. 	Study of	this inves	tment i	nas air	eady b	een				· ·		-	Coco area is acc		
Ministerio de	economía	a v Planific	ación (MED	Conon	nv and		tile a	1550	ciated emp	loyment	oppoi	tunities are incr	easeu.	
Planning Minis						ily alle	1								
14. Project Descrip							15	. Soci	ial-e	environmen	tal consid	deratio	on		
The plan is to	build a pi	er with a s	gravitat	ional	tructu	re	1)	Soci	ial i	mpacts – p	ositive im	pacts	are expected, s	uch as	
(reinforced co	-	-										•	nd employment		
the seabed) of	f 110,0 m	long, 52,3	3 m wid	le, 5,40	0 m de	ep, an	ıd	rele	evan	nt sectors					
an area of 575	i3 m2.						2)	Nat	ura	l Environme	ent – EIA i	for cor	nstruction and c	peration	
The design is for ships with the following characteristics:								sho	uld	be carried	out				
● Length – 90 m	• Length – 90 m							Poll	lutic	on – to be e	xamined	for the	e construction p	hase.	
● Draft – 4,50 m						4)	Env	iror	nmental Im	oact Asse	ssmen	t (EIA) – require	èd		
● Beam – 14 m															
Deadweight – 3000 tons															
16. Relevant projec	ct(s)														
•															

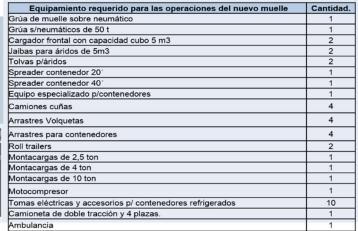


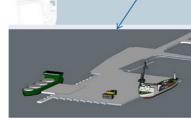
18. Notes (if any)

AMPLIACIÓN DE PUERTO CASASA. 2019-2020



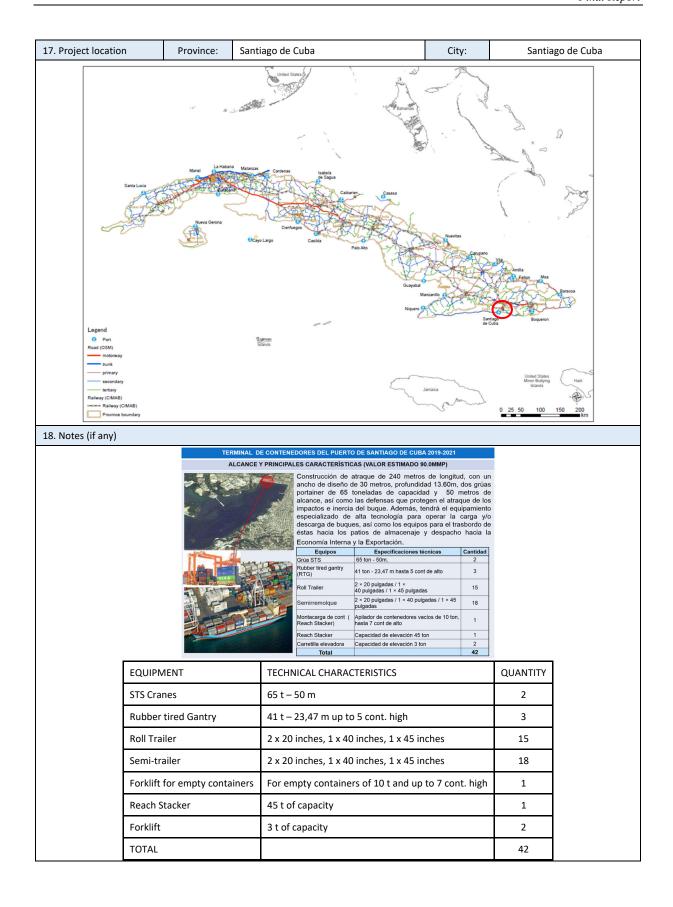




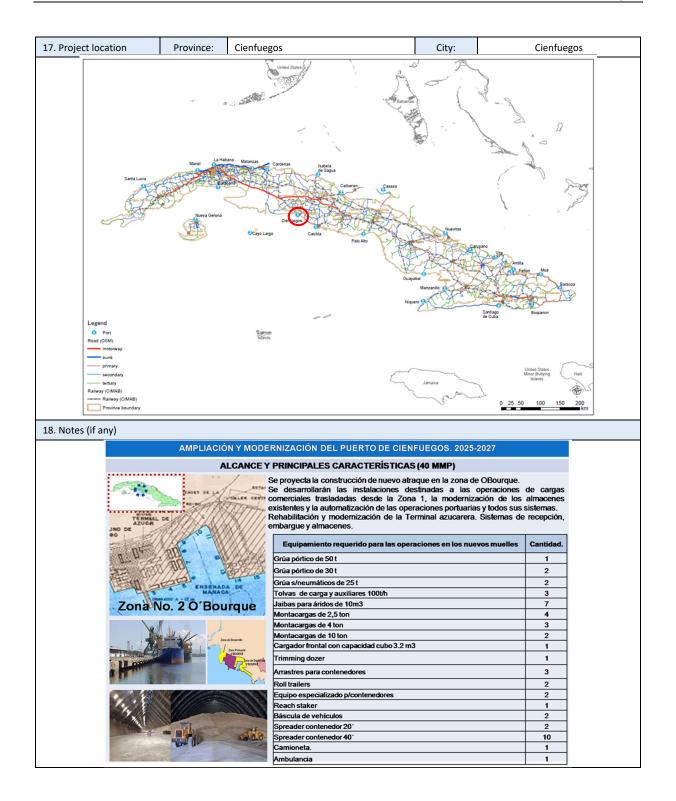


Required equipment for the operation of the new wharves	Quantity
Quayside rubber-tire crane	1
Rubber-tire crane of 50 tons	1
Front loader of 5 m3	2
Grab crane for aggregates 5 m3	2
Hopper for aggregates	2
Spreader for 20 feet	1
Spreader for 40 feet	1
Specialized equipment for container	1
Container truck	4
Semi dump trailer	4
Tractor	4
Roll trailer	2
Forklift 2,5 tons	1
Forklift of 4 tons	1
Forklift of 10 tons	1
Motor compressor	1
Plugs and other parts for refrigerated containers	10
Four-wheel drive Pickup truck with 4 seats	1
Ambulance	1

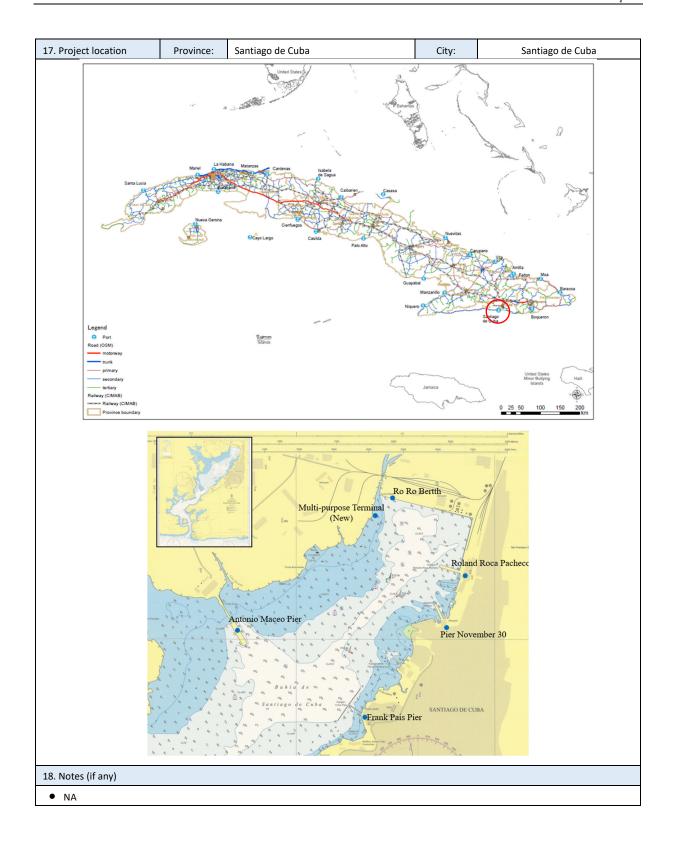
			1										
1. Project Code	M00	06	2. Projec	t Title	Santiago	de C	de Cuba Port Container Terminal						
3. Implementation	Agency	GEM	AR, MITRA	NS				4. Implement	ation per	iod			
5. Project cost (but	dget)	625 r	million CUI	25 m	illion USD)			Start	202	6	End	2029	
6. Source of finance			ate budge		•		External fi	nancing agen	ries	⊠ Fo	reign Investors		
o. source of finance		□ □ 3t	ate buuge				LACEITIAITII	nancing agen	LIC3		reign investors		
	☐ Trans	nort D	lanning	MIO	gistics/Carg	70				Гп	☐ Immediate		
	☐ Road	•	•		s passenge		cnort				(2022 – 2023)		
	☐ Railw	_	-		s passerige vironment						-		
7. Sector	☐ Aviat	•			stitution/Re	aulat	ion	Priority	•		(2024 – 2026)		
	⊠ Port		ma		levant busi	•		•		П	Medium-term		
	△ 1 01 t/	iviaiiti	ille	ixe	ilevant busi	11033	and others	•			(2027 – 2030)		
										<u> </u>	(2027 2030)		
	Key Areas	:		9	Objective	(code)	10. Strategy	(code)		11. Goal (cod	e)	
1. Planning and coordination 2.1, 2.2							.,	2.1.1, 2.2.1	(couc)		2.1.1.1, 2.2.1	-	
2. Transport infrastructure development								2.1.1, 2.2.1			2.1.1.1, 2.2.1	.1	
Transport infrastructure development Benvironment, safety, and security													
Environment, safety, and security Transport service and industry development													
Transport service and industry development Transport pricing and resource allocation													
· · · · · · · · · · · · · · · · · · ·													
6. Institutional and regulatory development											L		
12. Purpose of the	nroiect						13 Exne	cted Benefits,	/Outcome	25			
Renovation as		nizatio	n of the co	ntaina	Torminal	o.f	-				s can be provide	ad and	
the Guillermó)			_		argo handling ca		
As part of the		-	_				reduc		01 00111	anner e	argo nanamig et	an oc	
investment in	_		-	-		2			to an inci	rease i	n container carg	o handling	
existing facilit	y and infr	astruct	ure condit	ion for	the contain	ner		e at the Santi			_	, ,	
operation is in	-						• Releva	eased.					
cracked, and	he contai	iner ha	ndling nee	ds the	cranes of th	ne							
ships because	the lack	of quay	side crane	s and s	omething								
makes this op	eration v	ery inef	fficient and	daccor	dingly it has	S							
been below th	ne level of	f intern	ational sta	ndards	i.								
 Renovating ar 	nd moder	nizing t	he contair	er terr	ninal is								
expected to ir	nprove th	e oper	ation of th	e Santi	ago de Cub	а							
port to the lev													
A preliminary	_		-										
under discuss			_			-							
the same gov				ipurpo	se Terminal								
(built by a Chi	•	oration	i ccc).				45.0						
14. Project Descrip								ll-environmer					
Construction				-	ıres:				•		re expected, su		
- Length 240 m, width 30 m, depth 13.60 m								_			om the port ope		
- Two quayside container cranes: 65 t and 50 m reach									ent will b	e mcre	ased through co	nstruction	
 Fenders that protect the ships Specialized technology for loading/unloading cargo 								operation.	nt EIA	for con	estruction and o	noration	
to/from s		IOSY IUI	i ioauiiig/l	iiiioaul	iig caigu		Natural Environment – EIA for construction and operation should be carried out.						
	-	e cargo	to/from s	torage	vards					for cor	nstruction and o	neration	
		c cargo	,	torage	yarus		phas		Adminicu	.01 (01	istruction and 0	peration	
16. Relevant proje		1 11 1	OI :				-		nact Asse	ssmen	t (EIA) – require	d	
 Multipurpose 	Terminal	built b	y a Chines	e corpo	ration CCC	C.	<i>→,</i> ∟v	ommentar IIII	Juct Asse.	55111611	c (LIA) TEQUITE	-	



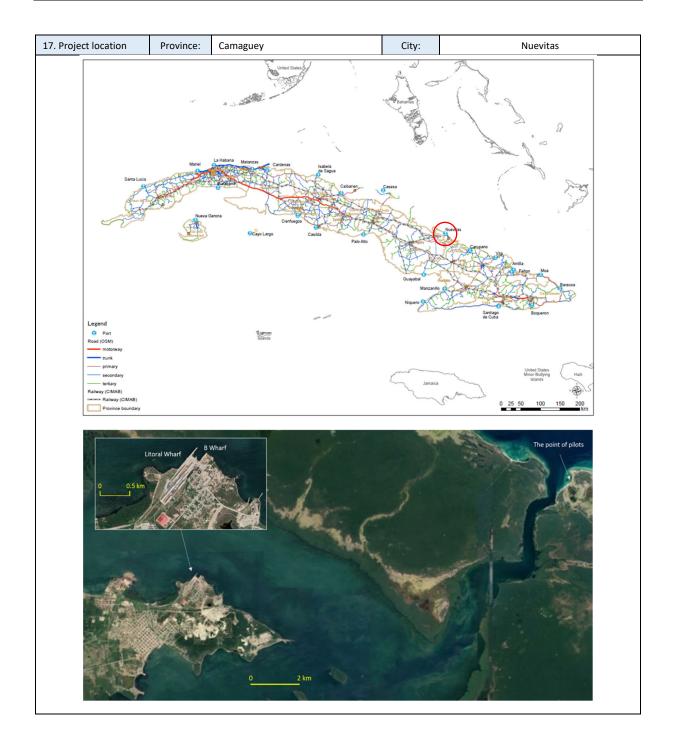
1. Project Code	MOC	17	2. Projec	t Title	Cienfue	gos Po	os Port Expansion and modernization								
3. Implementation	Agency	MITR	ANS, GEN	1AR				4. Implemen	tation per	iod					
5. Project cost (bud	dget)	500 r	million CU	P (20 m	illion USD)			Start	202	6	End	2029			
6. Source of finance	<u> </u>	⊠ St	ate budge	t		\boxtimes	External fi	nancing ager	icies	☐ Fo	reign Investors				
		I						- 0 0							
	☐ Trans	port Pl	anning	⊠ Log	gistics/Carg	0					Immediate				
	☐ Road	/Bridge	•	□ Bu	s passenge	r tran	sport				(2022 – 2023)				
	☐ Railw	ay		☐ Env	/ironment			8. Projec	:t	\boxtimes	Short-term				
7. Sector	☐ Aviat	ion		Ins	titution/Re	egulat	ion	Priority			(2024 – 2026)				
	⊠ Port/	Maritin	ne	Re	levant busi	ness	and others	;			Medium-term				
											(2027 – 2030)				
	Key Area	5		g	. Objective	(cod	e)	10. Strateg	gy (code)		11. Goal (cod	de)			
1. Planning and coo	ordination	1													
2. Transport infrast	tructure d	evelop	ment	2	.1			2.1.1			2.1.1.1				
3. Environment, sa	fety, and	securit	у												
4. Transport servic	e and ind	ustry de	evelopme	nt											
5. Transport pricing	g and reso	ource a	llocation												
6. Institutional and	regulato	y deve	lopment												
Г															
12. Purpose of the	project						13. Expe	cted Benefits	/Outcome	es .					
 Cienfuegos po 	rt is class	ified as	a Genera	l Intere	st Port of tl	he	Qualit	y and quanti	ty of cargo	handl	ing capacity an	d services are			
First Priority b	ecause of	its con	nmercial i	mporta	nce. It		impro	ved.							
provides servi	ces to shi	ps for i	nternation	nal and	coastal					-	ment of Cienfu	legos.			
navigation. It	also provi	des var	ious port	service	such as		• Increa	sed employr	nent oppo	rtunitie	es				
storage, unloa	_		_			ls									
(sugar, grain).			_	_											
cruise ships ca				-											
Olympia Medi						'									
deteriorating.	-				-										
and developed Wharf and Tri	=	-	_		_										
This project w															
modernize the) to									
accommodate	_				=										
service will be	upgrade	d to int	ernationa	- I standa	rds.										
14. Project Descrip	tion						15. Socia	l-environme	ntal consid	deratio	n				
The plan is to	build a ne	w bert	h in the ar	rea of O	Bourque,		1) Socia	l impacts– p	ositive imp	acts ar	re expected, su	ch as			
including deve	eloping th	e facilit	ies for the	e comm	ercial cargo	0	incre	ased govern	ment reve	nue fro	om the port ope	eration.			
operations fro	m Zone 1	, mode	rnization	of the e	xisting		Besid	les, employn	nent will b	e incre	ased through c	onstruction			
warehouses, a	and auton	natizati	on of port	operat	ions and al	I	and o	peration.							
its systems. In	addition,	renova	ation and	moderr	ization of t	the	2) Natu	ral Environm	ent – EIA 1	or con	struction and o	peration			
sugar termina	l, receptio	n, boa	rding, and	storag	e systems a	are	shou	ld be carried	out.						
included.							3) Pollution – to be examined for construction and operation								
16. Relevant projec	ct(s)						phas								
Multipurpose CCCC	Terminal	built by	y the Chin	ese cor	ooration		4) Envir	onmental Im	pact Asse	ssment	: (EIA) – require	≀d			



1. Project Code	M008		2. Projec	t Title	Cruise Pa	assenger Te	rmin	al in Santiag	o de Cuba	a Port	(Feasibility Stud	у)
3. Implementation	Δgency	MITE	ANS, GEN	1ΔR			4	. Implement	ation ner	ind		
5. Project cost (but					nillion USD)			Start	202		End	2026
6. Source of finance			ate budge		11111011 030)		al fin	ancing ageno			reign Investors	2020
6. Source of fillanc	e	△ 31	ate buuge			L Extern	ai iiii	ancing agenc	les	<u> </u>	ireigii iiivestors	
7. Sector	□ Road □ Railw □ Aviat	☐ Transport Planning ☐ Road/Bridge ☐ Railway ☐ Aviation ☐ Port/Maritime ☐ Railway ☐ Relevant business						8. Project Priority	:	Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
				_							1	
	Key Areas				Objective (code)		10. Strategy	(code)		11. Goal (cod	le)
Planning and coo Transport infrast			ment	1.1				1.1.3			1.1.3.3	
3. Environment, sa		•										
4. Transport service			•	nt								
5. Transport pricing			•									
6. Institutional and	l regulato:	y deve	lopment									
12. Purpose of the	project					13. E	xpec	ted Benefits,	/Outcome	es		
Santiago de Cub	a port is c	ne of 0	Cuba's mo	st impor	tant touris	t • Ti	ie nu	mber of crui	se ship vi	sitors i	s increased and	contributes
ports. Therefore	-	_				to	the a	acquisition o	f foreign	curren	cies.	
planned to acco	mmodate	foreig	n tourists	visiting b	by cruise							
ships. The city of Santi	ago de Cu	ha is u	nder deve	lonment	t in terms o	of						
historical avenu	•			•								
foreign tourists.		•										
cruise ship passe	engers rer	nains a	ın old build	ding.								
14. Project Descrip	tion					15. 9	ocial-	-environmen	ital consid	deratio	on	
1. Existing facili	ties' cond	ition ar	nd capacity	y		1) 5	ocial	impacts - N	IA			
2. Demand fore	•	•		•		2) 1	latur	al Environme	ent – Con	structi	on phase and o	peration
3. Planning and	Design - I	ayout ¡	olan, conce	eptual d	esign of		hase					
	facilities								-		d operation pha	
4. Cost estimates							nviro	onmentai lmį	oact Asse	ssmen	t (EIA) – Neede	a
Economic and Financial analysis Environmental Impact Assessment (EIA)												
Implementat	-	, 133633	ciii (LIA)	•								
16. Relevant project												



1. Project Code	oject Code M009 2. Project Title Rep						Repair and modernization of the port of Nuevitas						
2 Implementation	Aganay	CEMAR	NAITDA	NC				1	Implomont	ation novi	iad		
Implementation Froject cost (buck)		GEMAR	-	(10 million	IISD)			4.	Implementa Start	202	1	End	2025
6. Source of finance		□ State			וטפט		vtornal	finai	ncing agenc		I	reign Investors	2023
6. Source of finance	=	□ State	buuget				xterriai	IIIIai	icing agenc	ies	⊠ FUI	reign investors	
7. Sector	☐ Transport Planning ☐ Logistics/Cargo☐ Road/Bridge☐ Bus passenger trai☐ Railway☐ Environment☐ Aviation☐ Institution/Regula☐ Relevant business						8. Project ⊠ Short-term ion Priority (2024 – 2026)						
	Key Areas	5		9. Obje	ctive	(code)		1	.0. Strategy	(code)		11. Goal (cod	le)
1. Planning and coo	<u> </u>			3. 3.5		(couc)			ior otrategy	(0000)		22. 000. (000	,
2. Transport infrast			ent	2.1				2	2.1.1			2.1.1.1	
3. Environment, sa	fety, and	security											
4. Transport service	e and ind	ustry deve	elopmer	nt									
5. Transport pricing													
6. Institutional and	regulato	ry develor	oment										
10.0							40.5			/0 :			
12. Purpose of the Nuevitas port import of ferti import of ferti Old piers built usable. Theref upgraded. The route of the safety will be of the safety	mainly had lizer, don't during the lore, the lore, the lore entrarensured. It is part of the lore entrarensured in and moninly used is Tunas, as ods for the during transport of the lore entrarensured lor	nestic trance 1990s a Littoral piestice channon the renoves the pier "C" berth. The dernization of for unload by the rail and Holgushese proving ported by actional differences ducosts.	nsport of are deter should let is commented in action of the action of Tarading good way to the action of the acti	f cement cli riorated and d be repaired applicated; no port infrast cen to allow n was the beard rafa port. ods. The un Ciego de Av Port) by coa ere handled However, t for Havana	nker, dand not dand dand dand dand dand dand dand dan	etc. ion re, er ng of d	• Qu are	ality imp	roved.	ty of carg	o hand	dling capacity a	
14. Project Descrip	tion						15. Sc	cial	-environme	ntal cons	iderati	on	
berthing area and the touris port. The follo • 220 m lo • Constru • Modern	berthing area will be built, allowing larger ships from Mariel and the touristic northern keys to berth mainly in the Casasa port. The following studies will be conducted for Nuevistas. 220 m long berthing with 3 multi-purpose gantry cranes. Construction of a container yard. Modernization of the existing warehouses. Navigation safety will be improved.				el asa s.	go In cc 2) N sh 3) Po ph	add onstr atura iould ollut nase	nment reventition, emploruction and Environmed be examination — to be o	nue from oyment w operation ent – EIA ed. examined	the po vill be i n. for co	such as increas ort operation an ncreased throu nstruction and onstruction and ont (EIA) – requir	e expected. gh operation operation	
Multipurpose		built by tl	he Chine	ese corpora	tion Co	CCC.	1						





Análisis de la transportación de cargas para las provincias de Camagüey, Ciego de Ávila, Las Tunas y Holguín.





Cargas a transportar y sus costos:

	ARROZ	FRIJOL	CHICHARO	TOTAL	Distancia	Costo	Costo
PROVINCIAS				200000000000000000000000000000000000000		Ton/Km	TOTAL
	Er	miles	de tonela	das	Km	MP	MP
Puerto de La Habana- Ciego de Ávila	16184	1142	2925	20251	426,6	0,0732	632.38
Puerto de La Habana- Camagüey	18777	1232	5145	25154	528,4	0,0732	972.93
Puerto Santiago de Cuba -Las Tunas	28427	1322	2965	32714	192,0	0,0732	459.78
Santiago- Holguín(ferrocarril)	47305	1542	6806	55653	285,1	0,083	1316,75
TOTAL	110693	5238	17841	133772	1432,1		3381,83

Cargas a transportar y sus costos:

PROVINCIAS	ARROZ	FRIJOL	CHICHARO	TOTAL	Distancia	Costo Ton/Km	Costo TOTAL
	En	miles d	e tonelad	las	Km	MP	MP
Puerto Nuevitas- Ciego de Ávila	16184	1142	2925	20251	174,2	0,0732	258.23
Nuevitas- Camagüey	18777	1232	5145	25154	72,4	0,0732	133.31
Puerto Nuevitas -Las Tunas	28427	1322	2965	32714	187,5	0,0732	449.00
Nuevitas-Vita	47305	1542	6806	55653	162,9	0,0350	317.31
TOTAL	110693	5238	17841	133772	597.0		1157,84

REHABILITACIÓN Y MODERNIZACIÓN DEL PUERTO DE NUEVITAS. 2022-2025

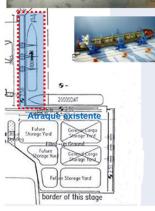
ALCANCE Y PRINCIPALES CARACTERÍSTICAS (30.0 MMP)



Se proyecta la construcción de un atraque de mayor longitud al actual, en la zona en el que se demuelen los espigones existentes, permittiendo el atraque de los buques de mayor porte previstos recibir por el incremento de la demanda de cargas desde Mariel y las correspondientes al desarrollo turístico de la Cayería Norte con destino al puerto de Casasa fundamentalmente.

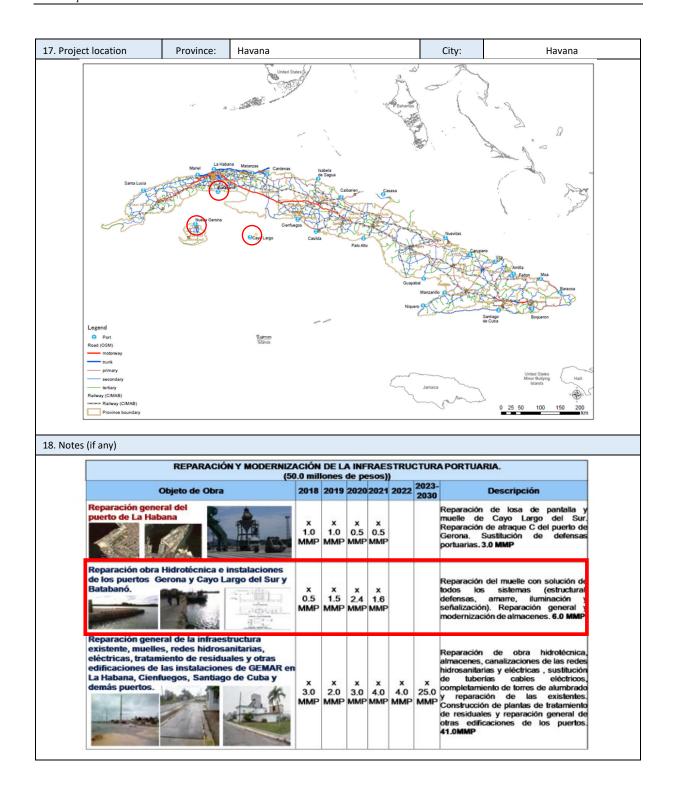
- Un Atraque de largo 220 m, con 3 grúas pórticos multipropósitos.

- Construcción de patio de contenedores. Modernización de almacenes existentes.

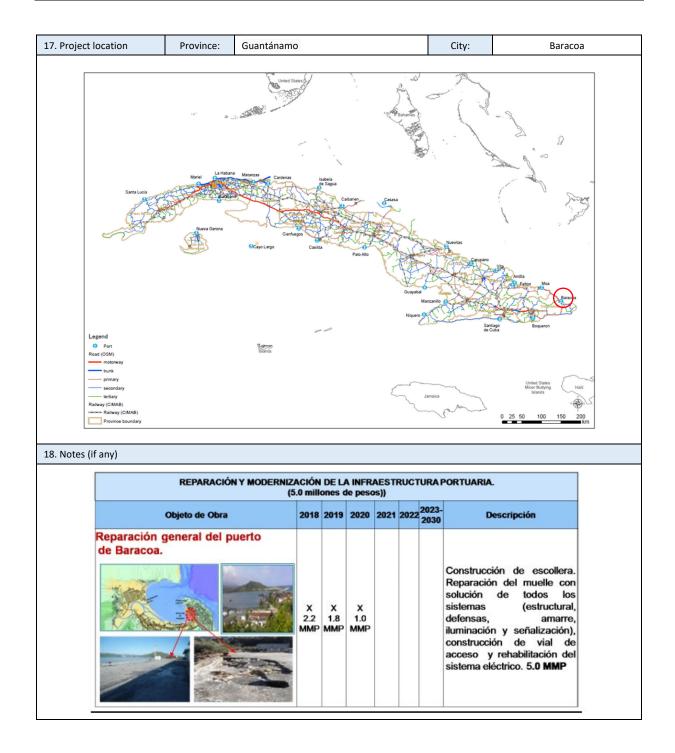


Equipamiento requerido para las operaciones de cada nuevo muelle	Cantidad.
Grúa pórtico de 50 t	1
Grúa pórtico de 30 t	2
Grúa s/neumáticos de 25 t	2
Tolvas de carga y auxiliares 100t/h	3
Jaibas para áridos de 10m3	7
Montacargas de 2,5 ton	4
Montacargas de 4 ton	3
Montacargas de 10 ton	2
Cargador frontal con capacidad cubo 3.2 m3	1
Trimming dozer	1
Arrastres para contenedores	3
Roll trailers	2
Equipo especializado p/contenedores	2
Reach staker	1
Báscula de vehículos	2
Spreader contenedor 20°	2
Spreader contenedor 40'	10
Camioneta.	1
Ambulancia	1

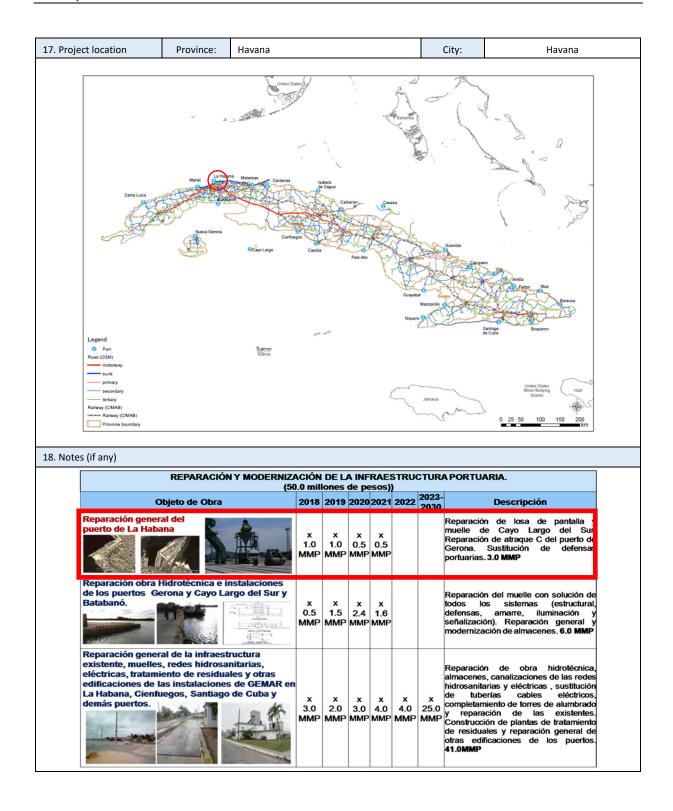
1. Project Code	M01	t Title		f hydro-tech banó ports	nica	al issues of	the facilitie	s of G	erona, Cayo Larg	go del Sur,			
3. Implementation			RANS, GEN		.:!!:			· ·	ntation per		F. J	2025	
5. Project cost (bud				-	nillion USD)		Start 2023 End External financing agencies					2025	
6. Source of finance	e	⊔St	ate budge	<u> </u>		□ Externa	I fin	ancing age	ncies	⊠ Fo	reign Investors		
7. Sector	☐ Transport Planning ☐ Logistics/Cargo☐ Road/Bridge☐ Bus passenger tra☐ Railway☐ Environment☐ Aviation☐ Institution/Regula☐ Relevant business							8. Project ⊠ Short-term tion Priority (2024 – 2026					
Key Areas 9. Objective (co								10. Strate	gy (code)		11. Goal (cod	e)	
	Key Areas 9. Objective (cool 1. Planning and coordination								87 (2222)			-,	
Transport infrastructure development 2.2								2.2.1			2.1.1.1		
3. Environment, sa	fety, and	securit	У										
4. Transport service	e and indu	ıstry d	evelopmeı	nt									
5. Transport pricing	g and resc	urce a	llocation										
6. Institutional and	regulator	y deve	lopment										
12 Durnasa of the	nrainat					12.5		tad Danafi	ts/Outsom				
12. Purpose of theThree ports, n		rona (avo Largo	dol Sur	and		Expected Benefits/Outcomes Ouality and quantity of cargo handling canacity and services a						
Batabanó port	=		-				 Quality and quantity of cargo handling capacity and services as improved. 						
modernization									tourism de	evelopr	ment of Cayo Lai	rgo and Isla	
These three persons	orts are e	ssentia	l to boost	the tour	rism sector	in de	la Ju	uventud			•		
the region as v	well as to	sustair	n the daily	life f the	e residents	of • Inc	reas	sed employ	ment oppo	rtuniti	es		
the islands.													
The existing p					rily								
deteriorate ar 14. Project Descrip		gent r	enabilitati	on.		15 0	ncial	Lanvironm	ental consi	doratio	nn .		
Repair the wh		Il ite ev	etome letr	ucturo	fondors							d	
berth, lights, a		-	stems (sti	ucture,	ienuers,	1 -			-	-	such as increase rt operation are		
Repair and mo			varehouse	S.		_				-	eased through c	•	
6.0 million CU								peration.	,				
16. Relevant projec	ct(s)							•	ment – EIA	for cor	struction and o	peration	
•							should be examined.						
							3) Pollution – to be examined for construction and operation						
							nase		mnact Assa	ccmc=	t (FIA) — require	d	



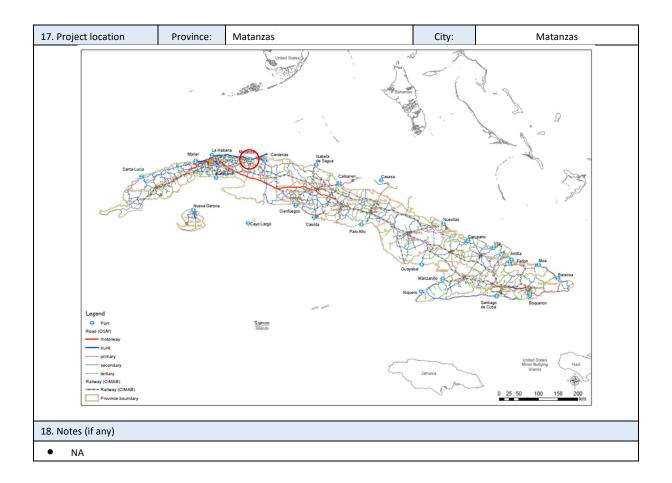
1. Project Code	M01	1	2. Projec	t Title	Baracoa	port Re	port Repair and modernization								
-															
3. Implementation	Agency	MITR	ANS, GEN	1AR			4	4. Implement	ation per	iod					
5. Project cost (but	dget)	250 r	million CU	P (10.0	million USD))		Start	202	4	End	2026			
6. Source of finance	е	⊠ St	ate budge	t		⊠ Ext	ternal fir	nancing agen	cies	☐ Fo	reign Investors				
	☐ Trans	port Pl	anning	⊠ Los	gistics/Carg	0					Immediate				
	□ Road	-	_	,	passenger		ort				(2022 – 2023)				
	☐ Railw	_			rironment		8. Project				Short-term				
7. Sector	☐ Aviati	•			titution/Re	gulation	1	Priority			(2024 – 2026)				
	⊠ Port/	Maritir	me		evant busi	_		,			Medium-term				
	,				acievani susmess and seners						(2027 – 2030)				
											,				
Key Areas 9. Objective (co								10. Strategy	(code)		11. Goal (cod	e)			
1. Planning and coordination															
Transport infrastructure development 2.2								2.2.1			2.2.1.1				
3. Environment, safety, and security															
4. Transport service and industry development															
5. Transport pricing	5. Transport pricing and resource allocation														
6. Institutional and regulatory development															
12. Purpose of the	project					1	3. Exped	ted Benefits,	/Outcome	es					
• The No.136 N	IITRANS R	esoluti	on in April	2006 h	as	•	Quality	y and quantit	y of cargo	hand	ling capacity and	d services are			
established 12	2 ports of	Catego	ry 2, from	which !	9 ports		improv	ved.							
belong to GEN	∕IAR (Caru	pano, ۱	Vita, Antill	a, Bara	coa,	• Stable supply of Canasta Basica									
Boqueron, Ma	anzanillo, (Guayat	oal, Palo A	lto y Ca	silda).	•	Increa	sed employm	ent oppo	rtuniti	es				
The Baracoa p	ort plays	a vital ı	role in the	area's	cabotage o	f									
staple food (c						ng									
difficult becau	ise of its li	mited	draft level	and the	e lack of										
equipment fo															
improved yet,		-				if									
nothing is dor			_												
The existing p					/ily										
deteriorate ar		_													
Besides, dredge		•	ntly need	ed to se	cure the sa	ite									
navigation cha		bertn.				41	F. C:-		1-1	1 1					
14. Project Descrip								l-environmen							
The existing wharf will be repaired by renewing all structure											such as increase				
and facilities: fenders, berth, lights, etc.							-			-	rt operation are eased through o	•			
Construction of an access road Renovation of the electrical system and warehouses.								peration.	ieni Will L	e mul	caseu unough (oristi uctivii			
		icai sy	sterri dila	vvai ei i O	uses.	21		•	ent – FIA f	or con	struction and o	neration			
16. Relevant project(s)							Natural Environment – EIA for construction and operation should be examined.								
•						2	3) Pollution – to be examined for construction and operation								
							phase.								
						4	•		oact Asse	ssmen	t (EIA) – require	d			
							,				. ,,	-			



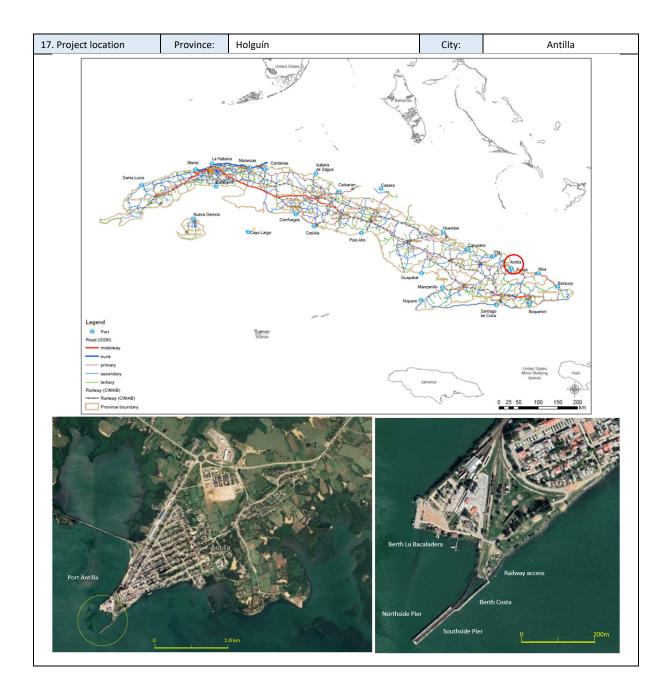
1. Project Code	M01	.2	2. Projec	t Title	General	repair of H	vana	a Port						
	•													
3. Implementation	Agency	GEM	AR, MITRA	ANS			4	1. Implement	ation per	iod				
5. Project cost (but	dget)	500 r	million CU	P (20 mi	llion USD)			Start	202	.3	End	2026		
6. Source of finance	е	⊠ St	ate budge	t		⊠ Extern	al fin	ancing agend	ies	☐ Fc	reign Investors			
						l.			J					
	☐ Transport Planning ☐ Logistics/Cargo										Immediate			
	☐ Road/Bridge ☐ Bus passenger tra										(2022 – 2023)			
7. Sector	☐ Railway ☐ Environment							8. Project		\boxtimes	Short-term			
7. Sector	☐ Aviat	ion		Ins	titution/Re	gulation		Priority			(2024 – 2026)			
	⊠ Port/	'Mariti	me	Rel	evant busi	ness and ot	hers				Medium-term			
											(2027 – 2030)			
	Key Areas			9.	Objective (code)		10. Strategy	(code)		11. Goal (cod	le)		
1. Planning and co	ordination	1												
2. Transport infras	2. Transport infrastructure development 2.2							2.2.1			2.2.1.1			
3. Environment, sa	fety, and	securit	У											
4. Transport servic	e and indu	ustry d	evelopme	nt										
5. Transport pricing	g and resc	ource a	llocation											
6. Institutional and	l regulato	ry deve	lopment											
12. Purpose of the	project						13. Expected Benefits/Outcomes							
Among the po		-	lavana por	t is the	most		Quality and quantity of cargo handling capacity and services a							
important por	-						improved							
To maintain the second se		•			•		creas	sed employm	ent oppo	rtuniti	ies			
rehabilitate th	ne existing	deteri	iorated po	rt infras	tructure ar	na								
facilities.	+ha+ +ha m	ort on	aration of	Hayana	مام ممالات									
It is expected international:		ort op	eration of	пачапа	wiii reacii	an								
14. Project Descrip						15. S	ocial-	-environmen	tal consi	deratio	on			
The general re		avana r	oort will be	carried	l out. like t	he 1) S	ocial	impacts – no	sitive im	pacts	such as increase	-d		
repair of conc	•				-			-		-	rt operation are			
restoration of			-	_							eased through	•		
berth fenders		0		,				peration.						
Repair and mo		on sha	ll be done	within t	he budget				nt – EIA	for cor	nstruction and c	peration		
1M.CUP for 20					•			d be examine				•		
and 2021 (this	s schedule	will be	e adjusted).		3) F	Pollution – to be examined for construction and operation							
16. Relevant proje	ct(s)					ŗ	hase	·.						
•						4) E	4) Environmental Impact Assessment (EIA) – required							



1. Project Code	M013		2. Projec	t Title	Matanza	as Port Repa	ir an	d Moderniza	ition				
3. Implementation	Agency	GEM	AR, MITRA	NS			4	. Implement	ation per	iod			
5. Project cost (but	dget)	500 r	million CUI	20 mil	lion USD)			Start	202	6	End	2028	
6. Source of financ	e	⊠ St	ate budge	t			al fina	ancing agen	cies	□ Fo	reign Investors		
		ı											
	☐ Transport Planning ☐ Logistics/Cargo										Immediate		
	☐ Road	/Bridge	9	☐ Bus	passenger	transport					(2022 – 2023)		
7 Contar	. Sector ☐ Railway ☐ Enviror							8. Project	:		Short-term		
7. Sector	Sector					gulation		Priority			(2024 – 2026)		
						ness and ot	ers			\boxtimes	Medium-term		
											(2027 – 2030)		
											,		
	Key Areas	5		9.	Objective ((code)		10. Strategy	(code)		11. Goal (cod	le)	
1. Planning and co	Planning and coordination												
2. Transport infras	Transport infrastructure development 2.2							2.2.1			2.2.1.1		
3. Environment, sa	fety, and	securit	У										
4. Transport servic	e and ind	ustry d	evelopme	nt									
5. Transport pricing	g and reso	ource a	llocation										
6. Institutional and	l regulato	ry deve	lopment										
-						•							
12. Purpose of the	project					13. E	13. Expected Benefits/Outcomes						
 Matanzas po 	rt mainly	handl	es the ex	port of	sugar,	● Qı	Quality and quantity of cargo handling capacity and services are						
import of fert	ilizer, do	mestic	transpor	of sulf	ur, etc.	im	improved						
Jose Luis Du	ıbrocq W	harf a	nd Reyno	ld Garc	ia Pier	• Co	Contribute to the economic development of Matanzas and the						
should be re	paired ar	nd maii	ntained. I	n additi	on, cargo	su	surrounding area						
storage ware	houses	are to	be facilita	ted.		• Ind	reas	ed employm	ent oppo	rtuniti	ies		
14. Project Descrip	tion					15. S	cial-	environmen	ital consid	deratio	on		
Jose Luis Du	ıbrocq W	harf w	ill be repa	aired.		1) S	ocial	impacts – po	ositive im	pacts	such as increase	ed	
 Warehouses 	for Jose	Luis [Oubrocq V	Vharf w	ill be	g	overr	nment reven	ue from t	the po	rt operation are	expected. In	
repaired and	newly co	onstruc	cted.			а	dditio	on, employm	nent will b	oe incr	eased through o	construction	
 Reynold Gar 	cia Pier (for su	gar expor	t) will be	e inspecte	ed, a	nd op	peration.					
and mainten	ance will	be ap	plied.			2) N	atura	al Environme	ent – EIA i	for cor	struction and o	peration	
16. Relevant projec	ct(s)							d be examine					
•						'			xamined	for co	nstruction and o	peration	
							nase.						
						4) E	nviro	nmental Im	oact Asse	ssmen	t (EIA) – require	d	



1. Project Code	roject Code M014 2. Project Title The repair and mod								of the p	ort of A	ıntilla		
	3. Implementation Agency MITRANS, GEMAR												
							4.	Implementa	•				
5. Project cost (bu	dget)	500 ı	million CUI	P (20 mi	llion USD)	1		Start	202	7	End	2029	
6. Source of finance	е	⊠ St	ate budge	t			fina	ncing agenc	ies	□ For	eign Investors		
				Π.						I –			
	☐ Trans	-	_	_	istics/Carg						Immediate		
	☐ Road ☐ Railw		е		passengei ironment	r transport		9 Droinet			(2022 – 2023) Short-term		
7. Sector		•								(2024 – 2026)			
	⊠ Port		me			ness and othe	ers	Triority			Medium-term		
						ness and othe	.13				(2027 – 2030)		
											(2021 2000)		
	Key Areas	5		9.	Objective ((code)	1	.0. Strategy	(code)		11. Goal (cod	le)	
1. Planning and co	ordinatio	ı		1.1	-		1	.1.2			1.1.2.2		
2. Transport infras	tructure c	levelop	oment	2.1			2	2.1.1			2.1.1.8		
3. Environment, sa	fety, and	securit	ty										
4. Transport service	e and ind	ustry d	evelopme	nt									
5. Transport pricin	g and res	ource a	llocation										
6. Institutional and	l regulato	ry deve	elopment										
12. Purpose of the	project						13. Expected Benefits/Outcomes						
The port of Antil	la, accord	ing to t	he classific	ation of	the ENOT	(Esquema	Quality and quantity of cargo handling capacity and						
Nacional de Ord	enamient	o Territ	orial), is cla	assified a	as a port of	general	 services are improved Contribute to the tourism development in the 						
interest in Categ	-												
The commercial			-								olguin Province		
damage to the ra							•	Increased e	mpioym	ent opp	ortunities		
connects to Anti has decreased in													
Pilotage and tug	-		-			-							
ports of Holguín		000 0.0	, p. ottaca		, ролско и.								
The port is expectation	cted to pla	ay a vita	al role in ca	botage	transporta	tion and in							
receiving cruise	ships in th	e futur	e.										
The project is vit	al for the	future	developme	ent of to	urism in Cเ	ıba,							
especially on the	north co	ast of F	lolguín Pro	vince.									
14. Project Descrip	tion						15	. Social-envi	ironment	tal cons	sideration		
A feasibility study s	hall be ca	rried o	ut consider	ing the f	ollowing d	evelopment	1)	Social impa	acts – po	sitive i	mpacts such as	increased	
stages and implement	entation.							governme	nt reveni	ue fron	the port oper	ation are	
Stage I								-			ployment will b	e increased	
Its main objective is							- >	through co			•		
the operation of ge				_			2)				A for constructi	on and	
development of El Bacaladera wharf.	Kamon de	Anuna	i Peninsula	Tourist	Pole throu	gn the La	21	operation			imeu. d for constructi	ion and	
It is also considered	to impro	ve the	conditions	establis	hed for acc	ess to land	3)	operation		annine	u ioi constructi	On and	
for cruise ship pass	-						4)	-	-	act Ass	essment (EIA) -	– required	
Stage II	Ü	J		•			,				, ,	•	
The main objective	is to enak	ole othe	er areas of	the port	facility, for	r cargo							
handling, to assimilate an increase in cargo.													
Stage III													
The objective of this stage would be the repair of the existing pier. Its						r. Its							
execution would only be justified if the capacities created in stages I and II													
were insufficient to meet the increase in cargo demand, as well as it would be justified the construction of a berth for the operation of cruise ships.													
		of a be	rth for the	operatio	on of cruise	snips.							
16. Relevant proje	ct(s)												
•							Ī						



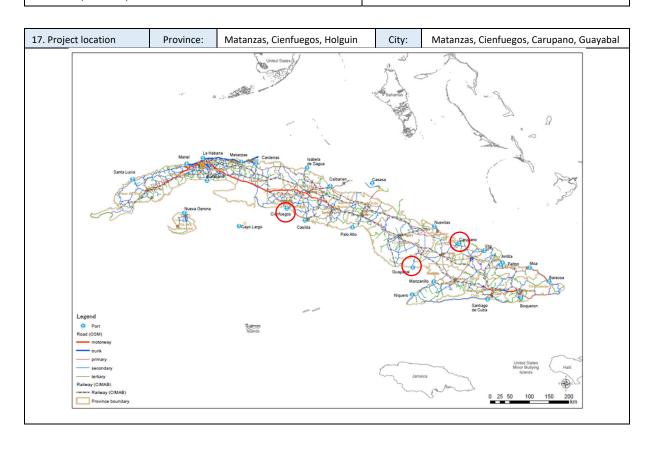
	I. Short term.(3.5 years)		
	Description		Value (M
TO OF	PERATE CARGOES BY LA BACALADERA WHARF		,
1	Evaluation of the structural condition of La Bacaladera wharf.		
2	Topobathymetric study in the berth basin and the access channel. Feasibility and environmental study.		1
3	Project contracts for dredging: wharf repair; construction of open storage areas; roofed warehouse.		1
4	Execution of the dredging works in the berth and in the basin.		4
5	Wharf repair and its back area for an open temporary storage.		2,3
6	Construction of the administrative premise, workshop, parking area, perimeter fence and access sentry box.		5
7	Electric, lighting and communications networks, sanitation and hydraulic installations.		5
	SUB-TOTAL		4.0
CARG	O HANDLING MEANS (EQUIPMENT)	Quantity	,
8	Reach Staker	1	8
9	Forklifts	2	
10	Truck crane	1	1,0
11	Tractor unit	1	1
12	General cargo (flat) and container trailers (length 12 m, flat type with twist locks for container operations).	2	3
13	Pick up	1	†
14	Automobile	1	
	SUB-TOTAL	9	2,4
.∩D 1	THE RECEPTION OF CRUISE SHIP PASSENGERS		۷,-
	Execution of actions for receiving passengers (bus parking area, pedestrian hall, road repair).		8
16	Perimeter fence for the facility and access sentry box		
17	Repair of rooms for the attention to cruise ship passengers and external areas.		
17	SUB-TOTAL		1,6
	TOTAL FIRST STAGE		8,0
	Description		Value (M
PREP	ARATION OF WAREHOUSE AREA		
1	To draw up an open and roofed warehouse project.		
2	Construction of warehouses		3,2
3	Construction of perimeter fence and access sentry boxes.		
4	Electrical, lighting and communications networks, sanitary and hydraulic installations.		3
	SUB-TOTAL		3,7
CARG	O HANDLING MEANS (EQUIPMENT)	Quantity	
5	Forklifts	2	,
	Tractor units	2	2
6	General cargo and container trailers (length 12 m, flat type with twist locks for container operations).	2	3
6 7	Ambulance	1	
_		-	
7	Pick up	1	
7	Pick up SUB-TOTAL	8	1
7			4,5
7 8 9	SUB-TOTAL TOTAL SECOND STAGE		
7 8 9	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years)		4,5
7 8 9	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description		
7 8 9	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES.		Value (M
7 8 9 Stage No	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses.		Value (M
7 8 9 Stage No O OF	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves.		Value (N
7 8 9 No O OF 1 2 3	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves. Repair of the railway access to the wharves.		Value (N
7 8 9 9 No 1 2 3 4	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves. Repair of the railway access to the wharves. Structural repair of the pier and placement of berth fenders.		Value (N
7 8 9 9 No O OP 1 2 3 4 5	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves. Repair of the railway access to the wharves. Structural repair of the pier and placement of berth fenders. Hydraulic, sanitary and electrical networks; other systems and roads.		4,5 Value (M
7 8 9 Stage No TO OF 1 2 3 4	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves. Repair of the railway access to the wharves. Structural repair of the pier and placement of berth fenders. Hydraulic, sanitary and electrical networks; other systems and roads. Construction of premises and other equipment for passenger control.		4,5 Value (M
7 8 9 Stage No CO OF 1 2 3 4 5	SUB-TOTAL TOTAL SECOND STAGE III. Long term (3 years) Description PERATE CARGOES AND CRUISE SHIPS BY THE WHARVES. Elaboration of projects, feasibility studies and the obtaining of permissions and licenses. Dredging of the basin and the wharves. Repair of the railway access to the wharves. Structural repair of the pier and placement of berth fenders. Hydraulic, sanitary and electrical networks; other systems and roads.		4,: Value (N

1. Project Code	M01	.5	2. Projec	t Title	Repair	and moder	nizatio	n of Sugar P	orts (Cien	fuego	s, Carupano, Gu	ıayabal)	
3. Implementation	Δgency	MITE	RANS, GEM	IΔR			4	. Implement	ation neri	ind			
5. Project cost (but			million CUI		nillion LIST))		Start	202		End	2030	
6. Source of finance			ate budge	-			nal fin	ancing agen			reign Investors		
6. Source of financ	е	△ 31	ate buuge			□ Exte	IIdi IIII	ancing agen	cies	□ F0	reign investors		
7. Sector	7. Sector							Immediate (2022 – 2023) 8. Project					
Key Areas 9. Objective (code)							1	n Stratomy /	'codo)		11 Goal (cod	0)	
1. Planning and co	Key Areas			3	. Objectiv	e (code)	1	O. Strategy (code)		11. Goal (cod	<u>e)</u>	
Transport infrast			ment	2	.3		2	.3.1			2.3.1.1		
3. Environment, sa											2.0.2.2		
4. Transport servic				nt									
5. Transport pricing			•										
6. Institutional and	l regulato	ry deve	lopment										
12. Purpose of the	project						13	. Expected	Benefits/0	Outcor	nes		
 GEMAR ports Niquero, Bara Gerona – Cayo Urgent repair maintenance export. 	coa, Boqu o Largo de and mode	ieron, a el Sur a ernizat	and the ne re used for ion and co	twork r sugar ntinuo	of Bataba export. us operat	nó - Nueva ion and	•	 Quality and quantity of cargo handling capacity and services are improved Contribute to the sugar industry in Cuba Increased employment opportunities 					
14. Project Descrip	tion						15	i. Social-env	ironment	al con	sideration		
Repairing work:	TION							Social impacts – positive impacts are expected					
 Repair roofs, facades, floors, and electrical and water ne Renovation and improvement of the ventilation, lighting drainpipe systems. Repair and modernization of equipmed 35.0 million CUP. Repair the metal structure, locks, roofs, buckets, and piph Assembly of fire system and other equipment. 0 million CUP. Repair the wharf with all its systems (structure, fenders, lighting, and signals). Renovation and modernization of the reception and embankment. Repair of the electrical systems. 0 million CUP Repair the wharf with all its systems (structure, fenders, lighting, and signals). Renovation and modernization of the reception and embankment. Repair of the electrical systems. 						, fire, and ent. es— berth, he system cem. berth, he system c	2) 3) 4)	as increas operation through o Natural Er operation Pollution - operation	ed govern . In additionstruction in the construction in the construction is should be exampled to be exampled.	ment on, em on and ot – El e exam amine	income from the ployment will be operation. A for construction	ne port be increased on and ion and	
Automatization of processes. 10.0 million CUP. Equipment: The plan is to renew 290 pieces of equipment. 210 from 290 to be renewed until 2022 (short and mid-term). Summary of the principal planned investments for this subprogram: equipment for port operations. • Forklift 2.5-10t: substitute numbers 68 out of total quantity 90. • Forklift 16t: substitute numbers 7 out of total quantity 17 • Trimming dozer 70-80 kW: substitute numbers 9 out of total quantity 15													

- Truck crane 25-50t: substitute numbers 1 out of total quantity 4
- Orange peel grab: substitute numbers 10 out of the total quantity of 20
- Reach Staker 45t: substitute numbers 6 out of total quantity 17
- Conveyor belt: substitute numbers 50 out of the total quantity of
 70
- Rubber-tired crane 25-75t: substitute numbers 9 out of the total of
 12
- Contact grab: substitute numbers 3 out of the total of 19
- Spreader cont.20 feet: substitute nos.17 out of the total of 30
- Spreader cont.40feet: substitute nos.9 out of the total of 20
- Rubber-tired Tractor 65-90hp: replacement 6 nos. out of the total of 15
- Rubber-tired crane 100t: substitute 1 nos. out of the total of 3
- Trailer and semi-trailer: substitute 24 nos. out of the total of 55
- Tractors 60t: replacement 15 nos. out of the total of 30
- Roll trailer: substitute 32 nos. out of the total of 54
- Electromagnet crane: substitute 10 out of the total of 19
- Rubber-tired front loader 2.5-3.2 m³: substitute 11 nos. out of the total of 14
- Crawler Bulldozer 160-180kw: substitute 2 out of the total if 4 nos
- Servo scales: no substitution in the total of 20 nos.
- Quayside cranes: no substitution in the total of 20 nos.
- Dredging mechanism: no substitution in the total of 3 nos.

16. Relevant project(s)

M013 (Matanzas)



18. Notes (if any)

Repair and modernization of sugar ports.

Objeto de Obra	2018	2019	2020	2021	2022	2023	Descripción
Reparación y modernización de almacenes y otras infraestructuras.	2010	2010				2030	Reparación de cubiertas, elementos de cierre de fachadas, pisos y conductores
	2.5 MMP	2.8 MMP	3.0 MMP		2.5 MMP	21.7	Rehabilitación y mejora de sistemas de ventilación, alumbrado, contraincendios desagües pluviales y otros. Reparación y modernización de equipamiento. 35.0 MMP
Reparación y modernización de tanques de miel y alcohol en las Terminales azucareras.	x 0.5 MMP	x 0.8 MMP	1.0 MMP	x 1.5 MMP	x 1.8 MMP		Reparación de estructura metálica y cierres, así como de cubiertas, cuberas y conductos. Montaje de sistema contraincendios y otros equipamientos.15.0 MMP
Reparación general Terminal azúcar de Guayabal		x 2.0 MMP	5.0 MMP	х 8.0 ММР			Reparación del muelle con solución de todos los sistemas (estructural defensas, amarre, iluminación y señalización). Rehabilitación y modernización del sistema de recepción y embargue de azúcar Reparación del sistema eléctrico Automatización de procesos, 15.0 MMP.
Reparación general Terminal azúcar de Carúpano.				X 1.0 MMP	x 1.5 MMP	x 7.5 MMP	Reparación del muelle y sus sistemas (estructural, defensas, amarre iluminación y señalización) Rehabilitación y modernización de sistema de recepción y embargue de azúcar. Reparación del sistema eléctrico. Automatización de los procesos. 10.0 MMP

Equipment

Investment budget.

COSTS OF THE INVESTMENT ACCORDING TO DECREE 327/2014

INDICATORS	TOTAL	THOUSANDS CUP	THOUSANDS CUC	THOUSANDS USD
	PLANNING			
CONSTRUCTION AND ASSEMBLY	0,0	0,0	0,0	0,0
EQUIPMENT	104420,2	10442,0	93978,2	70483,6
OTHERS	5495,8	549,6	4946,2	494,6
WORK CAPITAL				
TOTAL	109916,0	10991,6	98924,4	70978,3
E	CONOMIC FINANCE ASSE	SSMENT		
FIXED CAPITAL				
FIXED INVESTMENT	104420,2	10442,0	93978,2	70483,6
PREVIOUS EXPENSES	5495,8	549,6	4946,2	494,6
WORK CAPITAL	0,0			
TOTAL	109916,0	10991,6	98924,4	70978,3

	1													
1. Project Code	M016 2. Project Title Rehabilitation							erni	ization of th	ne GEMA	AR vess	els		
		I												
3. Implementation	Agency		RANS, GEN					4. In	mplementa	tion peri	iod			
5. Project cost (bud	dget)	1,000	0 million C	UP (40	million USE)		9	Start	202	2	End	2030	
6. Source of finance	е	⊠ St	ate budge	t		⊠ Exte	rnal fii	nano	cing agenci	es	☐ For	eign Investors		
				_							_			
	☐ Trans	•	_		gistics/Carg							Immediate		
	☐ Road ☐ Railw	_	9		s passengei vironment	r transpoi	Ť		9 Droject			(2022 – 2023)		
7. Sector	☐ Aviat	,			titution/Re	oulation	8. Project ⊠ Short-term Priority (2024 – 2026)							
	⊠ Port/		me		levant busi	-	others					Medium-term		
												(2027 – 2030)		
												T		
	Key Areas	S		9.	Objective	(code)		10	O. Strategy	(code)		11. Goal (cod	le)	
1. Planning and coo	ordination	1												
2. Transport infrast		-		2.	4			2.4	4.2			2.4.2.1		
3. Environment, sa	•		•											
4. Transport service		•		nt										
Transport pricing Institutional and				+										
6. Ilistitutional and	rregulator	iy ueve	портнети											
12. Purpose of the	project						13. Expected Benefits/Outcomes							
Ships under the		ean Nav	vigation co	mnany	have diffic	rulty						ndling capacity	and services	
navigating und			-			-			proved	city or co	1160 110	mamig capacity	and services	
coastal shippi	_			-	-				•	nomic d	levelop	ment through	increased	
operate for 12	20 days a	year.					co	asta	al shipping a	activities	;			
Repair costs for	or some s	hips are	e closer to	or som	etimes hig	her	• Inc	creas	sed employ	/ment o	pportu	nities		
than buying a	new ship													
 For port opera 				-										
from other po						ion								
and offshore v	•	•	•	enter t	he harbor,									
complaints fro		wners).					15 Social environmental consideration							
The project in		nair pro	agrams for	tho chi	ns that hal	ong to	15. Social-environmental consideration							
the auxiliary,			•		•	·	Social impacts – positive impacts are expected, such as an increase in employment expectualities.							
and Mambisa	•	•			•		increase in employment opportunities 2) Natural Environment – No impacts							
The number o							Natural Environment – No impacts Pollution – environment-friendly technologies should be							
- 32 vessels	s in 2018:	10 tug	boats, 2 Sh	nips Ro-	Ro type, 6		used for the repair work.							
Barges, 4	Pilot boat	ts, 7 sh	ip chandle	rs, 1 cle	an bay boa	at, 2	4) E	nvir	onmental I	mpact A	ssessm	ient (EIA) – Not	required	
catamara		-												
· ·		_	-	-	pe, 7 Barg									
	-	cnandle	ers, 1 clear	n bay bo	at, 2 catan	narans,								
and ferry - 31 ships in		tughos	ats, 3 Shine	Ro-Ro	type, 5 Bar	.pes 3								
· ·		_	-		at, 2 catan	_								
and ferry	-		,	,	,	,								
•	25 ships in 2021: 7 tugboats, 2 Ships Ro-Ro type, 4 Barges, 5													
Pilot boats, 4 ship chandlers, 2 clean bay boats, 1 catamaran						maran,								
and ferry	and ferry boats.													
- 27 ships in 2022: 6 tugboats, 2 Ships Ro-Ro type, 6 Barges, 3						_								
	Pilot boats, 8 ship chandlers, 1 clean bay boat, 1 catamaran,													
and ferry		0020 5	C +	. 45 61.	ne De De t									
•			-		ps Ro-Ro t , 10 clean l									
=			ferry boat		, 10 cicail i	Juy								

16. Relevant project(s)
•

17. Project location	Province:	All Cuba	City:	
● NA				

18. Notes (if any)

The number of planned groundings per type of ship is as follows:

SHIPS	2018	2019	2020	2021	2022	2023-2030
Tugboats	10	9	8	7	6	56
Ships RoRo type	2	1	3	2	2	15
Barges	6	7	5	4	6	35
Pilot boats	4	3	3	5	3	35
Ship chandlers	7	6	9	4	8	51
Clean bay boats	1	1	1	2	1	10
Catamarans and Ferry Boats	2	2	2	1	1	8
Total	32	29	31	25	27	210

Old and deteriorated fleet. Lack of spare parts and maintenance. The Caribbean Navigation Company is undercapitalized from a financial and human resources point of view.



Investment budget.

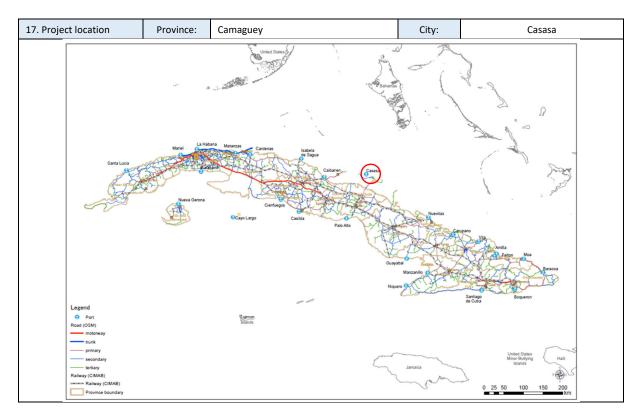
COST OF THE INVESTMENT ACCORDING WITH DECREE 327/2014

INDICATORS	TOTAL CURRENCY	THOUSANDS CUP	THOUSANDS CUC	THOUSANDS USD
	PLANNING			
CONSTRUCTION AND ASSEMBLY	0,0	0,0	0,0	0,0
EQUIPMENT	265414,1	119436,3	145977,7	58391,1
OTHERS	2681,0	1876,7	804,3	0,0
WORK CAPITAL	0000	380	2	08.00
TOTAL	268095,0	121313,0	146782,0	58391,1
FINA	ANCIAL AND ECONOMIC	ASSESSMENT	×.	
FIXED CAPITAL				
FIXED INVESTMENT	265414,1	119436,3	145977,7	58391,1
PREVIOUS EXPENSES	2681,0	1876,7	804,3	0,0
WORK CAPITAL	0,0			
TOTAL	268095,0	121313,0	146782,0	58391,1

					1								
1. Project Code	M01	M017 2. Project Title Procurement of Two 2,500DWT multipurpose vessels for coastal shipping in north coast									oping in the		
					Horarco	ast							
3. Implementation	Agency	GEMAR,	, MITRA	ANS			4.	. Implementa	ition peri	iod			
5. Project cost (bu	dget)	375 mill	ion CU	P (15 mi	llion USD)			Start	202	4	End	2026	
6. Source of finance	е	State	budge	t			☐ External financing agencies ☐ Foreign Investors						
						l			ı				
	☐ Trans	port Planr	ning	⊠ Log	istics/Carg	0	☐ Immediate						
	☐ Road	/Bridge		☐ Bus	passenger	transport					(2022 – 2023)		
7 Sector	7. Sector							8. Project		\boxtimes	Short-term		
7. 30000	7. Sector ☐ Aviation ☐ Institution/Reg							Priority			(2024 – 2026)		
	⊠ Port/	Maritime		Rel	evant busi	ness and oth	ers				Medium-term		
											(2027 – 2030)		
1 Dlanning and so	Key Areas 9. Objective (c								(code)		11. Goal (cod	e)	
Planning and co Transport infras			2.4.2			2.4.2.1							
Transport infrastructure development 2.4 Environment, safety, and security								2.1.2			2.1.2.1		
4. Transport service	•	•	lopme	nt									
5. Transport pricin	g and resc	urce alloc	cation										
6. Institutional and	l regulato	y develop	ment										
12. Purpose of the	project							ed Benefits/					
 To improve the 							-		of cargo	hand	ling capacity and	d services are	
coastal area,						1	improved Contribute to economic development through increased						
the procurem				-	-		-						
freighters was	-	a to the iv	MEP (IVI	inistry o	T Economy		coastal shipping activities • Increased employment opportunities						
and Planning)However, the		voccole w	oro no	t nurcha	sod duo to		ease	ea employme	ent oppo	rtuniti	ies		
the lack of fin		vessels w	rere no	t purcha	sea aae te	´							
This previous	•	ds to be u	ıpdated	l by reco	nsidering	the							
capacity of th	-		-	-									
14. Project Descrip	tion					15. So	cial-	environment	al consid	leratio	on		
The previous	study info	rmed the	necess	ity of acc	quiring the	4) So	cial i	impacts – po	sitive im	pacts a	are expected, su	ch as an	
two multipur	ose freigl	nters in 20	018-201	.9.		ine	creas	se in employ	ment opp	oortur	nities		
 General speci 	fications c	f the prop	osed v	essels a	re as follov	vs: 5) Na	tura	al Environme	nt – No ii	mpact	S		
- 2500 t of	6) Pc	lluti	on – environ	ment-frie	endly t	technologies sho	uld be used						
=	- Navigation in category 4 in the Beaufort scale							repair work					
Review the pr			odate tl	ne inforr	mation for	4) En	viro	nmental Imp	act Asses	ssmen	t (EIA) – Not req	uired	
the procurem		vessels.											
16. Relevant proje	ct(s)												
•													
47 8		D		<u> </u>	_				C'1				
17. Project locatio	n	Provinc	e:	Camagu	ey				City:				

NA 18. Notes (if any) In the following chart, there are characteristics of the necessary ships. BUQUE TIPO CANTIDAD ESTIMADO MMP AÑO PLAN CARACTERÍSTICAS TRÁFICO COSTA NORTE Carguero Multipropósito 1 15.0 2018 2019 15.0 2018 2019 Legra 4	17. Project location		Province:	Camagu	ıey			City:					
In the following chart, there are characteristics of the necessary ships. BUQUE TIPO CANTIDAD ESTIMADO MMP AÑO PLAN CARACTERISTICAS TRÁFICO COSTA NORTE Carguero 1 15.0 2018 2500 t de DWT , 4.80 m de calado con 2 grúas de 35 t y navegación mar	• NA												
BUQUE TIPO CANTIDAD ESTIMADO MMP AÑO PLAN CARACTERÍSTICAS TRÁFICO COSTA NORTE Carguero 1 15.0 2018 2500 t de DWT , 4.80 m de calado con 2 grúas de 35 t y navegación mar	18. Notes (if any)												
TRÁFICO COSTA NORTE Carguero 1 15.0 2018 2500 t de DWT , 4.80 m de calado con 2 grúas de 35 t y navegación mar	In the following chart, there are characteristics of the necessary ships.												
Carguero 1 15.0 2018 2500 t de DWT , 4.80 m de calado con 2 grúas de 35 t y navegación mar			BUQUE TIPO		CANTIDAD	ESTIMADO MMP	AÑO PLAN	N CARACTERÍSTICAS					
Carguero I 15.0 2010 2 grúas de 35 t y navegación mar		TRÁFICO COSTA NORTE											
					1			2 grúas de 35 t y					
TOTAL 2 30.0			TOTAL		2	30.0							

				Ι.		•		1.6.						
1. Project Code	M01	8	2. Projec	t Title	of Casas		t cargo v	/ess	sels for tour	ism deve	lopme	ent in the north	coast (port	
3. Implementation		MITR	RANS, GEN	1AR			4. Implementation period							
5. Project cost (but	dget)	1,000) million C	UP (40 r	nillion USD)			Start	202	3	End	2024	
6. Source of financ	e	⊠ St	ate budge	t		⊠ Ex	ternal fi	inar	ncing agenc	ies	☐ Fo	reign Investors		
	☐ Trans	port Pl	anning	⊠ Log	istics/Carg	go						Immediate		
	☐ Road/	Bridge/	2	☐ Bus passenger tran								(2022 – 2023)		
7. Sector	☐ Railw	ay		☐ Env	ironment				8. Project		\boxtimes	Short-term		
7. 30000	☐ Aviati	on		Inst	itution/Re	gulatio	n		Priority			(2024 – 2026)		
	⊠ Port/	Maritii	me	Rel	evant busii	ness an	nd other	S				Medium-term		
												(2027 – 2030)		
	Key Areas			9.	Objective ((code)		1	LO. Strategy	(code)		11. Goal (cod	le)	
1. Planning and coo								_						
2. Transport infrast				2.4	,			2	2.4.2			2.4.2.1		
3. Environment, sa	•		•											
Transport service and industry development Transport pricing and resource allocation														
Transport pricing and resource anocation Institutional and regulatory development														
6. Institutional and regulatory development														
12. Purpose of the project							-		ed Benefits/					
 It is necessary 		_	•	-		ort		•		of cargo	handl	ling capacity an	d services are	
tourism devel	•						impro							
An economic a			-	-							lopme	ent through incr	eased	
presented to t	ine iviinist	ry of tr	ne Econon	ny and P	ianning		coastal shipping activities Increased employment opportunities							
(MEP) • It was propose	ad to proc	uro foi	ır chinc: tı	ua multi	nurnoco		- moreuseu employment opportunities							
freighter (Con	-		-		-	,								
suggested yea														
However, the					-	of								
funds.														
This previous:	study nee	ds to b	e updated	by reco	nsidering t	the								
capacity of the	e vessel ar	nd fina	ncing avai	lability.										
14. Project Descrip	tion					1	15. Socia	al-e	nvironment	al consid	leratio	n		
 The general sp 	oecificatio	n of th	e propose	d ships a	are as	7	7) Social impacts – positive impacts are expected, such as an							
follows:							increase in employment opportunities							
,	•	-	segregatio	•			8) Natural Environment – No impacts							
· ·			l 60 m of r		_	9	•				endly t	echnologies sh	ould be used	
		•	n 50 to 60						repair work			· (EIA)		
			60m of ma		_		4) Envir	ron	imental Imp	act Asses	ssment	t (EIA) – Not red	quired	
		•	ie condition tions as pl		nned in 20	119								
,	•	condi	tions as pi	annea II	1 2019									
16. Relevant projec		, .												
Multipurpose	rerminal	built by	y the Chin	ese corp	oration									
CCCC.														



. Notes (if any)										
	ASEGURAMIENTO DESARROLLO TURÍSTICO CAYERÍA NORTE (CASASA)									
Acres de la constante de la co	Buque tanquero	1	10.0	2019	1000 t, 2 segregaciones (fuel-oil y turbo), calado 2.80 m y eslora máxima 60 m.					
	Buque portacontene-dores.	1	7.5	2019	De 50-60 contenedores, grúa de 35 t, calado 2.80 m y eslora máxima 60 m.					
	Buque portacontene-dores.	1	7.5	2020	De 50-60 contenedores, grúa de 35 t, calado 2.80 m y eslora máxima 60 m.					
A CONTRACTOR OF THE PARTY OF TH	Buque tanquero	1	10.0	2020	1000 t, 2 segregaciones (fuel-oil y turbo), calado 2.80 m y eslora máxima 60 m.					
тот	TOTAL									

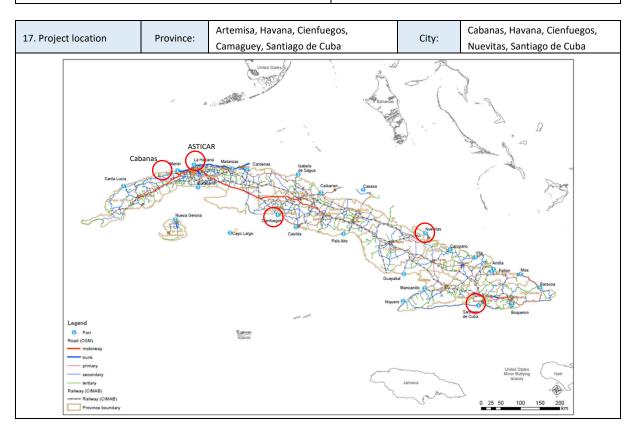
1. Project Code	L. Project Code M019 2. Project Title Development															
3. Implementation	Agency	MITRANS, GEN	ΛΛR				4. Implementation period									
				• 11	· - · · · · · · ·					atio			E. 1		20	20
5. Project cost (bud		625 million CU	P (25	mill	ion USD)				Start		202		End		20	30
6. Source of financ	e	State budge	et			⊠ Ext	ernal fi	nan	cing agen	cies		□ F	oreign Inves	stors		
		sport Planning		_	stics/Car	_							Immediate			
	□ Road/Bridge □ Bus passenger transp						ort		0. D				(2022 – 20			
7. Sector		☐ Railway ☐ Environment ☐ Aviation ☐ Institution/Regulatio							8. Project	τ			Short-term			
	☐ Aviat	/Maritime			•	egulation siness and			Priority				(2024 – 20 Medium-t	•		
	△ POIT,	/ iviaritime		Kele	vani bus	oniess and	u otners	1					(2027 – 20			
								_					(2027 20	,50,		
	Key Area	S		9. (Objective	(code)		10	0. Strategy	v (cc	ode)		11. Goal	(code	e)	
1. Planning and coo	<u> </u>				,	()				, , ,					-,	
2. Transport infrast				2.5				2.	.5.1				2.5.1.1			
3. Environment, sa																
4. Transport service	e and ind	ustry developme	nt													
5. Transport pricing	g and reso	ource allocation														
6. Institutional and	regulato	ry development														
12. Purpose of the	project						13. Expected Benefits/Outcomes									
GEMAR has 3	shipyards	destined for sma	all an	d me	edium-siz	ed	• Coi	ntrik	bute to the	e ec	onon	nic dev	elopment t	hroug	gh incre	eased
ships: Caribbe	an Drydoo	ck S.A.(CDC), Astil	lero (del C	aribe (AS	TICAR),	ava	ailab	ole ships							
and Damex Sh	ipbuilding	g & Engineering A	VV, S	S.A.(C	AMEX).		• Inc	reas	sed emplo	yme	ent o	oportu	inities			
GEMAR has 3	other ship	yards for smaller	ship	s: As	tillero de											
Oriente (Astor), Empres	a de Astillero (EN	A) y	Astill	ero Robe	rto										
Nodarse.																
	-	nd a floating dock														
		s, except DAMEX,														
		ructure nor the m				e										
		p machinery and	•	•												
_	-	re outdated, and			-											
also insufficient.	-	ently, the number	ot q	ualiti	ea worke	ers is										
		spare parts supply	, i+ ic	- Hiffi	cult to n	ovido										
	_	ently, the existing			-											
-		mand. The dema	-													
		current facilities														
such growing o	-															
 In this regard, 	it is indisp	ensable to rehab	ilitat	e the	existing											
shipyards and	build nev	v ones.														
14. Project Descrip	tion						15. Sc	cial	l-environn	nent	al co	nsider	ation			
According to the previous study, building 2 floating docks, 4							10) Social impacts – positive impacts are expected, such as an							s an		
	modular docks, and one dry dock can meet the demand for cruise							crea	ase in emp	oloyı	ment	oppo	rtunities			
	ship repair. General specifications are as follows:												ddressed in			
_	- Floating dock – 1 ASTICAR, the target year 2020, Length 60m,						12) Pollution – environment-friendly technologies should be									
	Beam 26m, Ships capacity up to 1500t, 2 Gantry cranes of 5t.						used for building shipyards and repair work.									
_		ASTICAR, the targ			_		4) Er	nviro	onmental	Imp	act A	ssessn	nent (EIA) –	Requ	ired	
		ship capacity up t	o 450	00t, r	nax. draf	t 11m,										
2 gantry c			, .	.	•											
		abanas/1 Nuevita			-											
_		arget year 2021-														
20m.	g capacity	y, length 50m, be	a111 Z	וווט, ו	inier wio	iui										
20111.							1									

- Dry dock 1 CDC, the target year 2020-2022, for ships up to 300 m long
- Travel lift 2 of 60t (2020)
- Rubber-tire crane of 100t (for four places) (2019-2023)
- Forklift of 5t 1 ASTICAR/ 1 CDC (2019-2023)

The previous study needs to be reviewed and updated.

16. Relevant project(s)

• Multipurpose Terminal built by a Chinese corporation CCCC.



18. Notes (if any)

There are inefficient, outdated and low number of dry docks. Exodus of qualified workforce of the shipyards that cannot be replaced with workers from other fields. Lack of spare parts and other materials for the ships.



DEMAND OF SHIP REPAIR OF GEMAR ENTERPRISES.

SHIPS	2018	2019	2020	2021	2022	2023-2030
Tugboats	10	9	8	7	6	56
RoRo ships	2	1	3	2	2	15
Barges	6	7	5	4	6	35
Pilot boats	4	3	3	5	3	35
Ship chandler	7	6	9	4	8	51
Bay clean boats	1	1	1	2	1	10
Catamarans and Ferry boats	2	2	2	1	1	8
Floating cranes and other auxiliary						
means	3	4	3	5	3	20
Total	35	33	34	30	30	230

CONCEPT	QUANTITY	TARGET	ESTIMATE	CHARACTERISTICS
		YEAR	MILLIONS	
Floating	1 ASTICAR	2020	20.0	Length 60m, Beam
Dock				26m, Ships capacity
1500 t				up to 1500 t, 2
1000 t				Gantry Cranes of 5t
Floating	1ASTICAR	2022	30.0	Length 112-120 m,
Dock				Beam 32m, Ships
4500 t				capacity up to 4500 t,
				max. draft 11 m, 2
				Gantry Cranes of 5 t
Modular	1 Cabañas	2021	120.0	From 1000-1750 t of
Docks	1Nuevitas	2030		max. Lifting
	- CI - A			capacity, length 50
	1Cienfuegos			m, beam 26 m,
	1Santiago			Inner width 20 m
	de Cuba			
Dry Dock	1 CDC	2020	50.0	For ships up to 300
		2022		m long
Travel Lift	2	2020	2.0	60 t

SUMMARY CHART OF THE MAIN PLANNED INVESTMENTS											
INVESTMENTS	SHORT AND MID TERM										
		MILLIONS CUP									
Docks and essential equipment	170,0	59,0	229,0								
Procurement of equipment for the shipyards	3,5	1,5	5,0								
Repair and modernization of shipyards facilities	9,9	12,2	22,0								
TOTAL	183,4	72,7	256,0								

COST OF THE INVESTMENT ACCORDING WITH THE DECREE 327/2014

	TOTAL CURRENCY	THOUSANDS	THOUSANDS	THOUSANDS							
INDICATORS	TOTAL CORRENCY	CUP	CUC	USD							
PLANNING											
CONSTRUCTION AND ASSEMBLY	15433,5	9260,1	6173,4	1852,0							
EQUIPMENT	233684,6	11684,2	222000,4	213120,3							
OTHERS	6929,8	1386,0	5543,8	5266,6							
WORK CAPITAL											
TOTAL	256047,9	233717,6	220239,0								
EVALUACIÓN ECONÓMICA FINANCIERA											
FIXED CAPITAL											
FIXED INVESTMENT	249118,1	20944,3	228173,8	214972,4							
PREVIOUS EXPENSES	6929,8	1386,0	5543,8	5266,6							
WORK CAPITAL	0,0										
TOTAL	256047,9	22330,3	233717,6	220239,0							

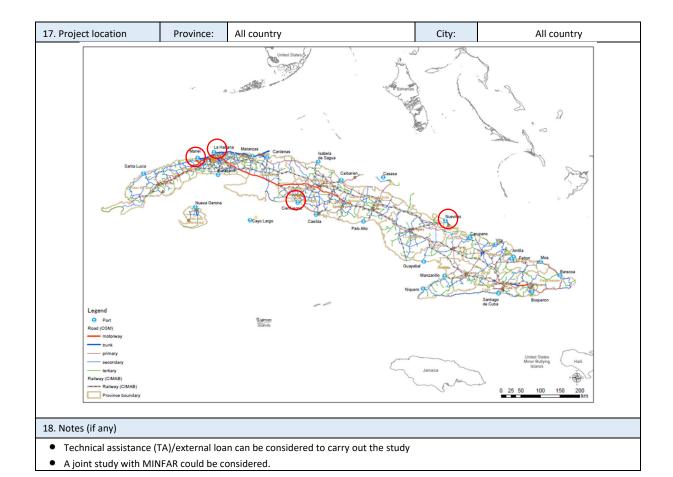
1. Project Code	M02	0	2. Proje	ct Title	Strateg	gic Env	vironmental Assessment (SEA) for Port and Maritime Projects								
3. Implementation	Agency	MITE	RANS, GEN	ИAR (Cimab)			4. Implementation period							
5. Project cost (bud	dget)	25 m	nillion CUF	(1.0	million USD)		S	Start	202	4	End	2026		
6. Source of financ	e	⊠ St	ate budge	et		\boxtimes	External fi	inanc	ing agen	cies	□ Fo	reign Investors			
☐ Transport Planning ☐ Logistics/Cargo												Immediate			
	☐ Road/Bridge ☐ Bus passenger trai						nsport					(2022 – 2023)			
7 Contar	☐ Railw	ay		⊠ E	nvironmen	t			8. Project	:	\boxtimes	Short-term			
7. Sector	☐ Aviati	on		I	nstitution/R	Regula	tion	1	Priority			(2024 – 2026)			
	⊠ Port/	Maritir	me	F	elevant bus	siness	and others	s				Medium-term			
												(2027 – 2030)			
	Key Areas				9. Objective	(code	e)	10.	. Strategy	(code)		11. Goal (cod	le)		
1. Planning and coo	ordination														
2. Transport infrast	tructure d	evelop	ment												
3. Environment, sa	fety, and s	ecurity	у		3.1			3.1	l.1			3.1.1.1~3.1.1	3		
4. Transport service	e and indu	ıstry de	evelopme	nt											
5. Transport pricing															
6. Institutional and regulatory development															
12. Purpose of the	project						13. Expe	cted	Benefits	/Outcom	es				
Strategic Environ	nmental A	ssessm	nent has n	ot yet	been well		• To sup	pport	t the plan	ning and	decisio	on-making proc	ess from		
established in th	ne port/ma	aritime	transpor	t secto	or.		SEA's	poin	t of view.						
It is necessary to	study SE	A issue	s in the p	ort/m	aritime		• То со	ntrib	ute to SD	Gs throu	gh SEA	exercises			
transport sector	and incre	ase the	e capacity	of do	ing SEA in tl	he	• The so	ocial	and natu	ral enviro	nmen	t is protected/ir	nproved.		
planning and de															
The associated of			-	organ	izational										
development pla		o need	ded.				45 Control on the control on the control of the con								
14. Project Descrip	tion						15. Social-environmental consideration								
Review SEA in th	ne port/ma	aritime	transpor	t sect	or in other		1) Social impacts–various aspects can be addressed through SEA								
countries							2) Natural Environment–effective use of satellite images, GIS,								
Study SEA-relate		_					and other statistical information								
Draft Strategic E			sessment	proce	dure in the		3) Pollution–possible environmental deterioration will be								
port/maritime to	•						avoided at a planning stage 4) Environmental Impact Assessment (EIA)–EIA follows SEA								
Prepare a capac	-	pment	plan for c	loing S	SEA		4) Envir	ronm	nental Imp	oact Asse	ssmen	t (EIA)–EIA folio	ws SEA		
Overseas training	g														
46 Balandaria	-1/-)														
16. Relevant project(s)															
•															
17. Project location	1	Provi	ince:	Natior	wide				C	City:					
18. Notes (if any)															
Technical assisA joint study v	•			can be	considered	d to ca	rry out the	e stud	dy						
71 Joint Study V	511101/	. 15 CA	Jecteu.												

1. Project Code	M02	21	2. Projec	ct Ti	tle	Reductio	on of	Fuel Cons	sum	ption fo	r Port	and M	laritim	e Sector	
3. Implementation	Agency	MITR	ANS, GEN	1AR					4. I	Impleme	entati	on peri	od		
5. Project cost (but	dget)	25 m	illion CUP	(1.0) milli	on USD)				Start		2024	4	End	2026
6. Source of financ	e	⊠ St	ate budge	t				External f	inar	ncing ag	encie	s	□ Fo	reign Investors	
	☐ Trans	sport Pl	lanning		Logis	tics/Carg	0							Immediate	
	☐ Road	/Bridge	9		Bus	oassenger	r tran	sport						(2022 – 2023)	
7 Castan	☐ Railw	ay		\boxtimes	Envi	ronment				8. Proj	ect		\boxtimes	Short-term	
7. Sector	☐ Aviat	ion			Insti	tution/Re	gulat	ion		Priorit	У			(2024 – 2026)	
	⊠ Port,	/Maritii	me		Rele	vant busi	ness	and other	rs					Medium-term	
														(2027 – 2030)	
	Key Areas	;			9. 0	bjective (code)	10	0. Strate	egy (c	ode)		11. Goal (cod	le)
1. Planning and co	ordination	1													
2. Transport infras	tructure c	levelop	ment												
3. Environment, sa	fety, and	securit	У		3.3				3.	.3.1				3.3.1.1	
4. Transport servic	e and ind	ustry de	evelopme	nt											
5. Transport pricing	g and reso	ource a	llocation												
6. Institutional and	l regulato	ry deve	lopment												
12. Purpose of the	project							13. Expe							
This is to study h	now fuel e	efficien	cy (t-km/f	uel)	can b	e improv	ed.			ciency w					
								• Conti	ribut	tion to S	SDGs -	- GHG e	emissic	ons will be redu	ced
14. Project Descrip	tion							15. Soci	al-e	nvironn	nental	consid	leratio	n	
Existing condition		maritir	ne transp	ort f	fuel co	onsumptio	on	1) Soci		-					
 Issues to be add 								-			ment	– poss	ible GI	HG emissions w	ill be
- Optimizatio		_	-		-	ncy, etc.)		estir							
- Suitable car	-		•	orta	ation			3) Polli							
- Modal shift			-					4) Envi	ironi	mental	Impac	t Asses	sment	t (EIA) – NA	
- Containeriz			forms of ti	rans	port										
- Advanced to	_														
Expected outcor			-												
- As a part of	•			•	•		e								
maritime ca	-		=		rategi	ies and									
associated p	olan prop	osals ar	re prepare	d.											
15. Relevant project	ct(s)														
•															
16. Project location	า	Pro	vince:	All	coun	try					(City:		All cour	ntry
• NA															
17. Notes (if any)															
Technical assi	stance (T	A)/exte	rnal loan o	can l	be co	nsidered	to ca	rry out th	e stı	udy					
A joint study \(\)	with GEA,	UFC, aı	nd MINCI	V is	expec	ted.									

1. Project Code	M02	2	2. Projec	t Title	Study o	n Modal	Shift fro	om	Road Tran	sport to I	Maritin	ne Transport		
3. Implementation Agency MITRANS, GEMAR														
3. Implementation	Agency	MITI	RANS, GEM	1AR				4. I	mplementa	ation per	iod			
5. Project cost (bu	dget)	50 m	nillion CUP	(2.0 mi	llion USD)				Start	202	4	End	2026	
6. Source of finance	e	⊠ S	tate budge	t		⊠ Ext	ternal fi	nan	ncing agenc	ies	□ Fo	reign Investors		
						•								
	⊠ Trans	sport P	Planning	⊠ Lo	gistics/Car	go						Immediate		
	☐ Road	_	е		passenge	r transpo	ort					(2022 – 2023)		
7. Sector	Railw	•			vironment				8. Project			Short-term		
	☐ Aviat ☑ Port/		mo		titution/Re levant busi	_			Priority		la	(2024 – 2026) Medium-term		
	M POIL/	iviaiiti	ille	Ke	ievant busi	illess all	u otners	١			"	(2027 – 2030)		
												(2027 2000)		
Key Areas 9. Objective (code								10	D. Strategy	(code)		11. Goal (cod	le)	
1. Planning and co	1. Planning and coordination													
2. Transport infras	Transport infrastructure development													
3. Environment, sa	3. Environment, safety, and security 3.4						3.4.1 3.4.1.1							
4. Transport service				nt										
5. Transport pricin														
6. Institutional and	6. Institutional and regulatory development													
40.0							13. Expected Benefits/Outcomes							
12. Purpose of the projectMaritime transport is vital in transporting fuel and other bulk							13. Expected Benefits/Outcomes To provide multimodal transport services at lower transport							
-			-			k	-		vide multin	nodal tra	nsport	services at low	er transport	
goods in Cuba. I transported by			_		_	ad	fare		ıcina the u	sa of true	rks GH	IG emissions ca	n ha raducad	
The maritime tr							Оруг	cut	acing the u	se or trut	,K3, G11	id emissions ca	ii be reduced	
large- and long-	=		-		_									
shift from the ro		_												
sector is expect	ed by takii	ng sucl	h an advan	tage.										
This study aims	to establis	sh a se	t of detaile	d strate	egies and									
corresponding r	neasures t	to enco	ourage a m	odal sh	ift from th	е								
road transport s		he mai	ritime tran	sport se	ector.									
14. Project Descrip									-environme		siderat	tion		
Customer (mark			,				,		impacts –					
A potential cust		_		-	oe carried	out to	,		al Environr ion – NA.	nent – N	4			
find cargo for th Types of cargo,			•		nars)		•			nnact Ac	caccma	ent (EIA) – EIA v	vill he	
willingness to pa					•	lied	•		ed for a sele	•		` '	VIII DC	
to attract custor	=									,,,,,				
Use of Balance of	de Cargas	data (E	BC data)											
To find potentia	l cargo de	mand	for the ma	ritime t	ransport s	ector,								
BC data shall be	used effe	ctively	'.											
Service development														
Coordinating with land transport service providers is needed to														
provide multimodal transport services. The generalized cost (fare + time cost) of multimodal transport service, including maritime					,									
transport, shoul			•	-	•									
service. In this r					-									
transport service	-		=	. ~4300										
HG emission.														
Pilot project														
A pilot project s	hall be car	ried o	ut by ident	ifying a	few strate	egic								
goods for a proposed multimodal transport service.														
16. Relevant proje	16. Relevant project(s)													
Balance de Carg	as													

17. Project location	Province:	Whole country	City:	NA
Whole country				
18. Notes (if any)				
Technical assistance (Table 1)	A)/external loan	can be considered to carry out the study		

3. Implementation Agency GEMAR, MITRANS 4. Implementation period 5. Project cost (budget) 37.5 million CUP (1.5 million USD) Start 2024 End 2026 6. Source of finance ⊠ State budget ⊠ External financing agencies □ Foreign Investors □ Transport Planning □ Logistics/Cargo □ Immediate (2022 – 2023) 8. Project Short-term (2024 – 2026) 9. Port/Maritime Relevant business and others Priority (2024 – 2026) 9. Objective (code) 10. Strategy (code) 11. Goal (code) 1. Planning and coordination 2. Transport infrastructure development 3. Environment, safety, and security 3.7 3.7.1, 3.7.2 3.7.1.1, 3.7.2.1 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 13. Expected Benefits/Outcomes 12. Purpose of the project 13. Expected Benefits/Outcomes • Safer navigation will be achieved; hence the risk of an accident will reduce. 15. Social-environmental consideration 15. Social-environmental consideratio	1. Project Code	M02	!3	2. Projec	t Title	Study or	n Upgrading P	lan	for Ship Nav	igation S	ystem	in Cuban Ports	
S. Project cost (budget) 37.5 million CUP (1.5 million USD) Start 2024 End 2026 6. Source of finance State budget State	-	ı							<u> </u>				
Transport Planning	3. Implementation	Agency	GEM	AR, MITRA	NS			4.	. Implementa	ition pei	riod		
Transport Planning	5. Project cost (bu	dget)	37.5	million CU	P (1.5 n	nillion USD)		Start	202	24	End	2026
Road/Bridge	6. Source of finance	е	⊠ Sta	ate budge	t			fina	ancing agenc	ies	□ Fo	reign Investors	
Road/Bridge							•						
7. Sector		☐ Trans	port Pl	lanning	☐ Log	gistics/Carg	0					Immediate	
Aviation		☐ Road	/Bridge	9	☐ Bus	s passenger	transport					(2022 – 2023)	
Aviation Relevant business and others Priority (2024 – 2026) Medium-term (2027 – 2030)	7 Sector	☐ Railw	ay		☐ Env	vironment			8. Project		\boxtimes	Short-term	
Key Areas 9. Objective (code) 10. Strategy (code) 11. Goal (code)	7. 5000	☐ Aviat	ion		Ins	titution/Re	gulation		Priority			(2024 – 2026)	
Key Areas 9. Objective (code) 10. Strategy (code) 11. Goal (code)		⊠ Port/	Maritir	me	Re	levant busi	ness and othe	ers				Medium-term	
1. Planning and coordination 2. Transport infrastructure development 3. Environment, safety, and security 3. 7 3.7.1, 3.7.2 3.7.1.1, 3.7.2.1 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes • This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration • Survey and analysis of the existing conditions related to safe navigation 9. Survey and analysis of the existing conditions related to safe navigation 10. Social impacts –NA 21. Natural Environment – NA 22. Natural Environment – NA 23. Pollution – NA 24. Environmental Impact Assessment (EIA) – NA												(2027 – 2030)	
1. Planning and coordination 2. Transport infrastructure development 3. Environment, safety, and security 3. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes 14. Project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration 17. Social impacts –NA 28. Safety improvement plan (facilities and devices) 39. Pollution – NA 40. Environmental Impact Assessment (EIA) – NA	Key Areas 9 Objective									,			
2. Transport infrastructure development 3. Environment, safety, and security 3. 7 3. 7 3. 7. 1, 3. 7. 2 3. 7. 1. 1, 3. 7. 2. 1 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes 14. Project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration 1 Survey and analysis of the existing conditions related to safe navigation 1 Safety improvement plan (facilities and devices) 2 Natural Environment – NA 3 Pollution – NA 4 Environmental Impact Assessment (EIA) – NA	· · · · · · · · · · · · · · · · · · ·					Objective ((code)		10. Strategy	(code)		11. Goal (cod	e)
3. Environment, safety, and security 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project • This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description • Survey and analysis of the existing conditions related to safe navigation • Safety improvement plan (facilities and devices) - Channel dredging, including maintenance, widening 3.7.1, 3.7.2 3.7.1, 3.7.2 3.7.1, 3.7.2 3.7.1, 3.7.2 3.7.1, 3.7.2 3.7.1, 3.7.2 4. Expected Benefits/Outcomes • Safer navigation will be achieved; hence the risk of an accident will reduce. 15. Social-environmental consideration 1 Social impacts –NA 2 Natural Environment – NA 3 Pollution – NA 4 Environmental Impact Assessment (EIA) – NA													
4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes • This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration • Survey and analysis of the existing conditions related to safe navigation • Safety improvement plan (facilities and devices) - Channel dredging, including maintenance, widening 4. Transport service and industry development 13. Expected Benefits/Outcomes • Safer navigation will be achieved; hence the risk of an accident will reduce. 15. Social-environmental consideration 1 Social impacts –NA 2 Natural Environment – NA 3 Pollution – NA 4 Environmental Impact Assessment (EIA) – NA	· ·		•		2	7		+	271 272			2711272	1
5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes • This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration • Survey and analysis of the existing conditions related to safe navigation • Safety improvement plan (facilities and devices) - Channel dredging, including maintenance, widening 13. Expected Benefits/Outcomes • Safer navigation will be achieved; hence the risk of an accident will reduce. 15. Social-environmental consideration 16. Institutional and regulatory development		•		•		,		+	3.7.1, 3.7.2			3.7.1.1, 3.7.2	.1
6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes 14. Project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration 16. Institutional and regulatory development 18. Expected Benefits/Outcomes 18. Safer navigation will be achieved; hence the risk of an accident will reduce. 19. Social-environmental consideration 19. Social impacts —NA 20. Natural Environment — NA 21. Project Description 22. Natural Environment — NA 23. Pollution — NA 24. Environmental Impact Assessment (EIA) — NA	· ·			•									
12. Purpose of the project This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description Survey and analysis of the existing conditions related to safe navigation Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening 13. Expected Benefits/Outcomes Safer navigation will be achieved; hence the risk of an accident will reduce. 15. Social-environmental consideration 1 Social impacts –NA 2 Natural Environment – NA 3 Pollution – NA 4 Environmental Impact Assessment (EIA) – NA													
 This project aims at developing a comprehensive navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening Safer navigation will be achieved; hence the risk of an accident will reduce. Social-environmental consideration Social impacts -NA Natural Environment - NA Pollution - NA Environmental Impact Assessment (EIA) - NA 			,	<u> </u>									
navigation safety improvement plan for four major ports, namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening accident will reduce. 15. Social-environmental consideration 1) Social impacts –NA 2) Natural Environment – NA 3) Pollution – NA 4) Environmental Impact Assessment (EIA) – NA	12. Purpose of the	project					13. Exp	pect	ed Benefits/	Outcom	es		
namely, Mariel, Havana, Cienfuegos, and Nuevitas 14. Project Description 15. Social-environmental consideration Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening 15. Social-environmental consideration 1) Social impacts –NA 2) Natural Environment – NA 3) Pollution – NA 4) Environmental Impact Assessment (EIA) – NA	This project air	ns at dev	elopin/	ıg a comp	rehens	sive	● Saf	er n	navigation w	ill be a	hieve	d; hence the ri	sk of an
14. Project Description Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening 15. Social-environmental consideration 1) Social impacts –NA 2) Natural Environment – NA 3) Pollution – NA 4) Environmental Impact Assessment (EIA) – NA	navigation safe	ety impro	vemen	nt plan for	four m	ajor ports	acc	ider	nt will reduc	e.			
 Survey and analysis of the existing conditions related to safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening Social impacts –NA Natural Environment – NA Pollution – NA Environmental Impact Assessment (EIA) – NA 	namely, Mariel	, Havana	, Cien	fuegos, a	nd Nue	evitas							
safe navigation Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening Natural Environment – NA Pollution – NA Environmental Impact Assessment (EIA) – NA	14. Project Descrip	tion					15. So	cial-	environment	tal consi	deratic	on	
Safety improvement plan (facilities and devices) Channel dredging, including maintenance, widening Safety improvement plan (facilities and devices)	 Survey and an 	alysis of	the ex	isting con	ditions	related to	1) So	cial	l impacts <i>–</i> l	NA			
- Channel dredging, including maintenance, widening 4) Environmental Impact Assessment (EIA) – NA	safe navigation	า					2) Na	atura	al Environm	ent – N	A		
	Safety improve	ement pla	ın (faci	ilities and	device	es)	3) Po	lluti	ion – NA				
Navigation side (hypers landing light shorts)	- Channel dredging, including maintenance, wideni					ng 4) En	viro	onmental Im	pact As	sessn	nent (EIA) – N	Ą	
- Ivavigation alds (buoys, leading light, charts)	- Navigation	- Navigation aids (buoys, leading light, charts)											
- The pilot boat, Tugs	- The pilot												
Safety improvement plan (pilotage)	, ,	, , , , , , , , , , , , , , , , , , , ,											
- Training of pilot	- Training	of pilot											
- Plan of pilotage		•											
Vessel Traffic Service (VTS) development plan	Vessel Traffic	Vessel Traffic Service (VTS) development plan											
16. Relevant project(s)	16. Relevant proje	6. Relevant project(s)											



1. Project Code	M02	24	2. Proje	ct Title	Study or Passeng		opriate	Price	e of Port Se	vice and	d Dome	estic Transporta	ition (incl.
3. Implementation	Agency	MITE	RANS, GEN	ЛAR (Cir	nab)			4. I	mplementa	tion per	riod		
5. Project cost (bu	dget)	25 m	illion CUP	(1.0 mi	llion USD)				Start	202	24	End	2026
6. Source of finance	e	⊠ St	ate budge	et		⊠ Ex	xternal	finar	ncing agenc	ies	☐ Foi	reign Investors	
7. Sector	⊠ Tran □ Road □ Railw □ Aviat ⊠ Port	/Bridge /ay ion		☐ Bu: ☐ Env	gistics/Carg s passenger vironment stitution/Re levant busi	r transp egulatio	on	rs	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Area	·		٥	. Objective	(codo)		1	.0. Strategy	(codo)		11. Goal (cod	10)
1. Planning and co				9	. Objective	(coue)		1	.o. strategy	(coue)		11. Goal (coc	ie)
Transport infras			ment										
3. Environment, sa													
4. Transport service				ent									
5. Transport pricin			•		.1, 5.2			5	5.1.1, 5.2.1			5.1.1.1~2, 5	2.1.1~2
6. Institutional and	regulato	ry deve	elopment										
				·									
12. Purpose of the	project						13. Ехр	ecte	d Benefits/	Outcom	es		
The primary purpo	ses of thi	s study	are:				• Finar	ncial	ly sustainab	le port	operati	on and mainter	nance will be
To establish an a	appropria	te fee/	fare struc	ture for			achie	eved					
- Port tariff (-	e mariti	ime tra	nsport services	at a
- Domestic m		-							ole fare.				
Domestic particleTo clarify wheth	-				or tho		repa			ate buaş	get allo	cation for main	tenance and
maintenance an						s	тера	11 VV	JIK.				
14. Project Descrip							15. Soc	ial-e	nvironment	al consi	deratio	n	
• Survey									npacts – N		<u> </u>		
- Existing fee	s and reve	enue fr	om the po	ort oper	ation		•		Environme				
- Costs for se			· ·			nce	3) Poll	utio	n – NA.				
- Net profit fi	rom the p	ort ope	eration an	d other	related		4) Env	iron	mental Imp	act Asse	ssment	t (EIA) – NA.	
activities													
- Customer s		pected	services,	willingn	ess to pay f	for							
such service													
- Benchmark	•	У											
New fee (tariff)Establish ne	•	vriata f	oo/tariff s	vetome									
Application and			ee/taiiii s	ysterns									
Application of			ned fee sv	stem									
Monitor inco	=		-										
16. Relevant proje	ct(s)												
•													
16. Project location	n	Provi	nce: \	Whole co	ountry				City	r:		NA	
Whole country													

• Technical assistance (TA)/external loan can be considered to carry out the study (under CIMAB)

17. Notes (if any)

1. Project Code	M02	:5	2. Proje	ct Title	_		for Forei reement	_	irect Inve	estment	of Po	ort a	nd Maritime	Secto	r (Use of
		ı													
3. Implementation	Agency	MITE	RANS, GEN	1AR				4. Ir	nplemen	tation p	eriod	t .			
5. Project cost (but	dget)	25 m	illion CUP	(1.0 m	nillion USD)				Start	20	024		End		2026
6. Source of financ	е	⊠ St	ate budge	et		⊠E	xternal f	inan	cing agen	cies] For	eign Investo	rs	
7. Sector	⊠ Tran: ☐ Road ☐ Railw ☐ Aviat ⊠ Port/	/Bridge ay ion		□ Bı □ Er Ir	ogistics/Car us passenge nvironment nstitution/Ro elevant bus	er trans egulati	on		8. Projec Priority	t			Immediate (2022 – 2023 Short-term (2024 – 2026 Medium-terr (2027 – 2030	5) m	
	Key Areas			Ğ	Objective	(code)		10). Strateg	y (code)			11. Goal (c	ode)	
1. Planning and co															
2. Transport infras															
3. Environment, sa	•														
Transport servic Transport pricing			•		5.4			5	4.1, 5.4.2				5.4.1.1, 5.4	2.1	
6. Institutional and					5.2			1	4.1, 5.4.2 2.1				6.2.1.1, 6.2		
o. mstrational and	regulator	yucve	Портнети		,. <u>L</u>			0	2.1				0.2.1.1, 0.2	.1.2	
12. Purpose of the	project						13. Expe	cted	l Benefits	/Outcor	nes				
	vestment T. In this reconcession ary change ention ents may ons (PSA) ntiago de la anagemer Concessio gulations e attractive	(FDI) to egard, n agree es in lar include Cuba et struc n Agree	o Cuba's perment shows/rules/i	uld be regulatent invest	d maritime studied, an ions should nited to:	ıd	inves The uservice State 15. Social Social Polludeve 3) Pollud 4) Envi	tmer se of ce reve al-en al im ect ural E	nt f experien enue will i vironmen pacts – A Environm ment proj n – A stud	nced for increase ntal con study is ent – A lect y is nee pact As:	eign by c sider s nee study ded f	oper operation ration eded	rators will im ning concess n for future de eeded for fu uture develop (EIA) – A stu	prove	es. ment
16. Relevant projec	ct(s)														
17. Project location	n	Prov	ince:	All cou	ntry					City:			All cou	ntry	
18. Notes (if any)															
Technical assi	•	A)/exte	rnal loan	can be	considered	l to carı	ry out the	e stu	dy						
Port Management N Type	viodels	Basic	infrastruc	ture	Supers		re,		Cargo op	eration	, lab	or			
Public corvice o	ort		Public		equipm	nent Publi	C			Public					
Public service per Tool port	ort		Public			Publi				Public Private					
Landlord port			Public			Privat	te		I	Private					
Private service p	ort		Private			Privat	te			Private					

Concession Arrangements

In concession agreements, public bodies will retain the ultimate ownership of assets (especially land), but will transfer a major part of the financial and operational risks to the private sector. Governments will act mainly as regulators and land developers, while private firms will assume the responsibility for port operations.

..... A port concession is a contract in which a government transfers operating rights to private enterprise, which then engages in an activity contingent on government approval and subject to the terms of the contract. The contract may include the rehabilitation or construction of infrastructure by the concessionaire........ Concessions, by permitting governments to retain ultimate ownership of the port land and responsibility for licensing port operations and construction activities, further permit governments to safeguard public interests. At the same time, they relieve governments of substantial operational risks and financial burdens.

There are two main forms of concession used in ports today: lease contracts, where an operator enters into a long-term lease on the port land and usually is responsible for superstructure and equipment, and concession contracts, where the operator covers investment costs and assumes all commercial risks. Such contracts are often combined with specific financing schemes such as BOTs.

Lease contracts and concession contracts share the same principal characteristics:

The government or public port authority conveys specific rights to a private company.

They have a defined term (10~50 years).

They are geographically delimited.

They directly or implicitly allocate financial and operational risks.

	1										
1. Project Code	M026	2. Project Tit	le Strategic P	lan fo	r Developn	nent of	Non-st	ate Enter	prises	of Port and Ma	ritime Sector
3. Implementation	Agency	GEMAR, MITRA	NS			4. Impl	lementa	ation peri	od		
5. Project cost (but	dget)	25 million CUP	(1.0 million USD)			Sta	rt	2024	4	End	2026
6. Source of finance	e	State budge	t		External fi	nancina	g agenc	ies	□ Fo	reign Investors	
							0 - 0				
	⊠ Trans	sport Planning	□ Logistics/Ca	rgo						Immediate	
	□ Road	-	☐ Bus passeng	•	nsport					(2022 – 2023)	
	☐ Railw	_	☐ Environmen		-1	8.	Project			Short-term	
7. Sector	☐ Aviat	-	Institution/I	Regula	tion		iority			(2024 – 2026)	
	⊠ Port/	'Maritime	Relevant bu	siness	and others	5				Medium-term	
										(2027 – 2030)	
						·					
	Key Areas		9. Objective	(code	e)	10. St	trategy	(code)		11. Goal (cod	e)
1. Planning and co	ordination	1									
2. Transport infras	tructure d	evelopment									
3. Environment, sa	fety, and	security									
4. Transport servic	e and indu	ustry developme	nt								
5. Transport pricing	g and resc	ource allocation									
6. Institutional and	l regulato	ry development	6.3			6.3.1				6.3.1.1, 6.3.1	.2
12. Purpose of the	project				13. Expe	cted Be	enefits/	Outcome	S		
The purpose of this	s study is	to find a way to e	encourage non-st	ate	• Port o	peratio	on effici	ency is in	nprove	ed	
enterprises to join	the port a	and maritime tra	nsport sector (ca	rgo,	• Port u	sers ar	e incre	ased			
passenger, and por	rt-related	various services)			• The st	ate bu	dget is	reduced t	o ope	rate the ports ir	n Cuba
14. Project Descrip	tion				15. Socia	l-envir	onmen	tal consid	leratio	n	
Case studies					1) Socia	al impa	cts – A	study is n	eeded	for future deve	elopment
A series of cas	se studies	in other countrie	es shall be carried	lout	proje	ect					
regarding the	port oper	ation and mainte	enance, cargo an	d	2) Natu	ral Env	ironme	nt – A stu	ıdy is r	needed for futu	re
	-		related business			-	nt proje				
1	. Lessons	should be derive	d from the case				-			uture developm	
studies.							-			t (EIA) – A study	is needed
Existing condition					for fi	iture a	evelopi	ment pro	ject		
_		state enterprise pation of non-sta									
		te enterprises to	•								
related busi		te enterprises to	enter the port								
For future effection		ipation of non-st	ate enterprises								
- Benefit and											
- Restrictions	i										
- Suitable for	m of parti	cipation									
• Laws / Rules / R	egulations	5									
16. Relevant projec	ct(s)										
•											
17. Project location	n	Province:	All country		·			City:		All count	try
18. Notes (if any)											

• Technical assistance (TA)/external loan can be considered to carry out the study

1. Project Code	M02	27	2. Projec	t Title	Study or	n EDI aı	nd Installa	ation of	System i	n Cub	an Po	rts	
2 1		LAUTE	ANIC CEN	440									
3. Implementation			ANS, GEN					i. impie	mentatio	n per	100	1	
5. Project cost (bu	dget)	50 mi	llion CUP	(2 mil	lion USD)			Start		202	4	End	2026
6. Source of finance	ce	⊠ Sta	ate budge	et		⊠ Ex	ternal fir	nancing	agencies		□ Fo	reign Investors	
	11												
	⊠ Tran	sport Pla	anning	⊠ Lo	ogistics/Car	go						Immediate	
	☐ Road	/Bridge		□Ві	us passenge	r transp	ort					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Er	nvironment			8. P	roject		\boxtimes	Short-term	
	☐ Aviat				stitution/Re	•		Prio	rity			(2024 – 2026)	
	⊠ Port/	'Maritim	ne	R	elevant busi	ness ar	nd others					Medium-term	
												(2027 – 2030)	
						, , ,			. ,				
	Key Area				9. Objective	(code)		10. Sti	rategy (co	ode)		11. Goal (cod	le)
1. Planning and co													
2. Transport infras													
3. Environment, sa				_								1.0.1.1.0.1	•
4. Transport service		-	•	nt	4.3			4.3.1				4.3.1.1, 4.3.1	2
5. Transport pricin													
6. Institutional and	regulato	y devel	ортепі										
12. Purpose of the	project						12 Evn	octod B	enefits/C	Jutcoi	mos		
It is necessary to in	-	rgo han	dling effi	ciency	and reduce							transportation	nrocedures
associated costs by		-	_	-					-			with limited fac	-
also important to i							hum	an reso	urces.				
In this regard, this	project ai	ms at											
- Introduction	-			-									
- To improve p		-	-										
maritime tran	•	n, mariti	ime trans	port c	osts can be								
14. Project Descrip							15 Soc	ial-envi	ronment	al con	sidera	tion	
Case studies	Julion								icts – NA		isiacia	ition	
A series of cas	se studies	in other	r countrie	s shall	be carried	out	· ·	•	vironmer		Α		
regarding the	port oper	ation ar	nd mainte	enance	e, cargo and		3) Pol						
passenger tra	nsport sei	vices, a	nd other	relate	d business		l '			act As	sessm	ent (EIA) – NA.	
opportunities		should b	oe derive	d from	the case sti	udies.			•			, ,	
Study existing sylvanian		(اماداما								
- Ships ma - Port serv	_		anu saiiin	g scrie	dule)								
- Customs		icction											
- Quarantii	ne proced	ures											
- Immigrat	ion contro	ol											
- Cargo for		• •											
			•	domes	tic transport	ation							
- Linkage to			tabase										
Application and Introduct			ation of a	vailah	le EDI syster	mc							
	oms contr			vallab	ie LDI systei	113							
		•		ion sy	stem, custo	ms							
	nd statist		-		,								
- Develop	and applic	ation sy	stems										
16. Relevant proje	ct(s)												
•													
				:				ı					
17. Project location	n	Provir	nce: \	Nhole	country				City:			NA	
Whole country													
18. Notes (if any)													

• Technical assistance (TA) can be considered to carry out the study

Project for	Formulation	of National	Transport	Master	Plan in	the Re	epublic o	f Cuba
							Final	Ranart

Chapter 6

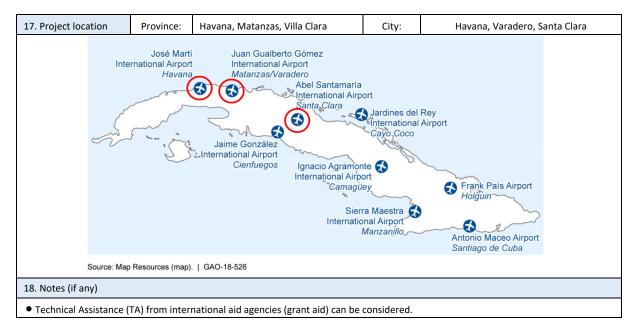
Appendix A5: Airport & Civil Aviation Sector

1. Project Code	A002	1	2. Project Title	Major Th	ree Airports	Facility and Equ	ipment l	Master	Plan Project	
3. Implementation A	Agency	MITR	AITRANS, CACSA 4. Implementation period							
5. Project cost (budg	get)	50 mi	0 million CUP (2.0 million USD) Start 2022 End 2023						2023	
6. Source of finance		⊠ Sta	State budget ⊠ External financing agencies □ Private investors							

	☐ Transport Planning	☐ Logistics/Cargo			Immediate
	☐ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7 Contor	☐ Railway	☐ Environment	8. Project	\boxtimes	Short-term
7. Sector		Institution/Regulation	Priority		(2024 – 2026)
	☐ Maritime	Relevant business and others			Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.2	2.2.1, 2.2.2	2.2.1~3, 2.2.2.1~3
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

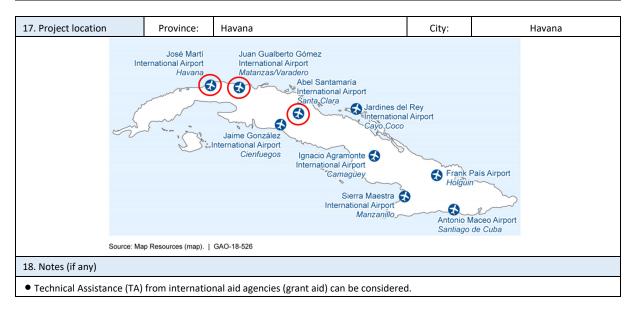
12. Purpose of the project	13. Expected Benefits/Outcomes
Development of airport facility and equipment master plan	 Airport Facility and Equipment Master Plan for major airports Mid-Long term demand forecast for major airports Information for securing budget
14. Project Description	15. Socio-economic consideration
 Some facilities and equipment are obsolete and deteriorated Some airport facilities & equipment are inadequate to meet the demand There is no facility and equipment master plan for major airports 	1) Social impacts – no significant impacts are expected 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – not required
16. Relevant project(s)	
 Airport System Digitalization Project (Code 02) – needs to be implemented in line with a master plan. 	



				s System Digitization Project						
Agency MIT	RANS, CACS	A		4. Implement	ation peri	iod				
5. Project cost (budget) 250 million CUP (Start	202	3	End	2026		
6. Source of finance			⊠ External f	inancing agen	cies	□Pr	☐ Private investors			
☐ Transport P	lanning	☐ Logistics/Carg	o,				Immediate			
☐ Road/Bridg	e	☐ Bus passenger transport					(2022 – 2023)			
☐ Railway		☐ Environment		8. Project	8. Project		Short-term			
		Institution/Re	gulation	Priority	Priority		(2024 – 2026)			
☐ Maritime		Relevant busi	ness and other	·s			Medium-term			
							(2027 – 2030)			
	et) 250 S Transport P Road/Bridge Railway Aviation	et) 250 million CUP State budget Transport Planning Road/Bridge Railway Aviation	et) 250 million CUP (10 million USD) State budget Transport Planning	et) 250 million CUP (10 million USD) State budget	et) 250 million CUP (10 million USD) Start State budget State budget Transport Planning Dogistics/Cargo Bus passenger transport Railway Environment S. Project Institution/Regulation	et) 250 million CUP (10 million USD) Start 202. State budget State budget External financing agencies Transport Planning	et) 250 million CUP (10 million USD) Start 2023 State budget State budget Start 2023 Transport Planning Degistics/Cargo Degisting Bus passenger transport Degister Bus passenger transport Degistion Start 2023 Aviation Institution/Regulation Priority	et) 250 million CUP (10 million USD) Start 2023 End State budget State budget State financing agencies Private investors Transport Planning Degistics/Cargo		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.1	1.1.1, 1.1.2, 1.1.3, 1.1.5	1.1.1.1~3, 1.1.2.1~3,
			1.1.3.1~4, 1.1.5.1
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Digitization of airport management and operation systems	 Installation of airport operation and management system Real-time monitoring of information Efficient airport operation and management
14. Project Description	15. Socio-economic consideration
 Some information concerning airport operation & management is collected inefficiently. Information is not analyzed as it is not organized. 	Social impacts – positive impacts are expected, including greater passenger satisfaction. Natural Environment – reduced emissions are expected with
16. Relevant project(s)	new equipment.
Major Airport Facilities and Equipment Master Plan Project (Code A001) – needs to be implemented per the Master Plan.	Pollution – positive impacts are expected, including reduced emissions due to more efficient operation. Environmental Impact Assessment (EIA) – not needed.



3. Environment, safety, and security

4. Transport service and industry development5. Transport pricing and resource allocation6. Institutional and regulatory development

1. Project Code	A00	3 2. Project Title Major Three Airport					GSE (Ground Support Equipment) Procurement Project						
3. Implementation	Agency	MITR	ANS, CAC	SA			4.	Implementa	ation per	riod			
5. Project cost (bu	dget)	750 r	million CU	P (30 mil	llion USD)			Start	202	23	End	2025	
6. Source of finance	е	⊠ St	ate budge	t			fina	ncing agenc	ies	□ Pr	ivate investors		
·													
	☐ Trans	port Pl	anning	☐ Logi	☐ Logistics/Cargo						Immediate		
	☐ Road,	/Bridge	9	☐ Bus	☐ Bus passenger transport						(2022 – 2023)		
7 Cartan	☐ Railw	ay		⊠ Env	ironment			8. Project			Short-term		
7. Sector		ion		Inst	Institution/Regulation			Priority			(2024 – 2026)		
	☐ Marit	ime		Rele	Relevant business and others		rs				Medium-term		
											(2027 – 2030)		
										· ·			
Key Areas			9. (9. Objective (code)		10. Strategy (code)		·	11. Goal (cod	e)			
1. Planning and coordination						•							
Transport infrastructure development				2.4	ļ.		2	2.4.1			2.4.1.1		

12. Purpose of the project	13. Expected Benefits/Outcomes
Urgent procurement of GSE	 The ratio of serviceable GSE will increase. (Serviceable GSE/Total GSE) Accidents in ramp areas will be reduced. Aged GSE is replaced.
14. Project Description	15. Socio-economic consideration
 Much of the existing GSE fleet is aged and deteriorated. Some existing GSE will be replaced, and the fleet will be expanded. 	Social impacts – positive impacts are expected, including increased passenger satisfaction. Natural Environment – reduced emissions are expected with
16. Relevant project(s)	new equipment
Project Technical Cooperation for GSE repair and maintenance (Code A004) – needs to be implemented in parallel.	Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – not needed



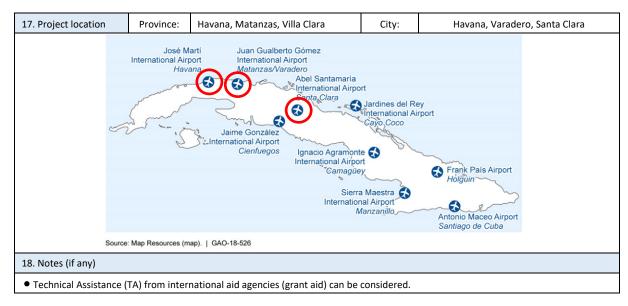
1. Project Code	A004	2. Project Title	Major Three Airports Technical Assistance for GSE (Ground Support Equipment) maintenance

3. Implementation Agency	MITRANS, CACSA	4. Implementation period					
5. Project cost (budget)	50 million CUP (2 million USD)	Start	2023		End	2025	
6. Source of finance	State budget	e budget 🗵 External			☐ Pri	ivate investors	

	☐ Transport Planning	☐ Logistics/Cargo			Immediate
	☐ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7 Cookers	☐ Railway	⊠ Environment	8. Project	\boxtimes	Short-term
7. Sector		Institution/Regulation	Priority		(2024 – 2026)
	☐ Maritime	Relevant business and others			Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.2	1.2.1	1.2.1.1~5
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

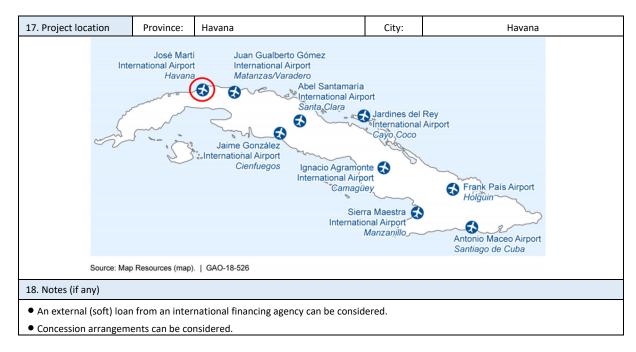
12. Purpose of the project	13. Expected Benefits/Outcomes
• Establish a training program for the repair and maintenance of	Lower GSE failure ratio.
GSE.	Develop a high-standard training program
• Train staff for GSE maintenance.	Train qualified staff
• GSE maintenance facilities (e.g., GSE hangar) are improved or	Install GSE maintenance facilities
installed.	Contribute to on-time-performance
14. Project Description	15. Socio-economic consideration
Existing GSE maintenance procedures are reviewed.	1) Social impacts – positive impacts are expected, including more
 Existing GSE repair procedures are reviewed. 	efficient GSE operations.
 Existing GSE human resources are enhanced. 	2) Natural Environment – no significant impacts are expected.
 Existing GSE maintenance facilities are reviewed. 	3) Pollution – no significant impacts are expected, but
16. Relevant project(s)	environment-friendly technologies can be considered.
• GSE procurement project (Code A003) needs to be	4) Environmental Impact Assessment (EIA) – not required
implemented in parallel.	



1. Project Code	A00	.005 2. Project Title Jos			Jose Mai	rti Internatior	nal A	l Airport Passenger Terminal Expansion Project					
3. Implementation	Agency	MITR	ANS, CAC	SA			4.	Implement	ation per	iod			
5. Project cost (but	5. Project cost (budget) 2.5 billion CUP (100 million U				lion USD)		Start 202			3	End	2027	
6. Source of finance								⊠ Pı	Private investors				
	☐ Trans	port Pl	anning	☐ Logi	stics/Carg	0					Immediate		
	☐ Road	/Bridge	:	☐ Bus passenger transport							(2022 – 2023)		
7. Sector	☐ Railw	ay		☐ Envi	ironment		8. Project			\boxtimes			
7. 30000	✓ Aviation			Inst	itution/Re	gulation		Priority		(2024 – 2026)			
	☐ Marit	time	me ⊠Relevant busi			ess and othe	rs				Medium-term		
											(2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.2	2.2.2	2.2.2.4
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of project	13. Expected Benefits/Outcomes
Add passenger terminal capacity to meet demand.	 The expanded terminal satisfies passenger demand. The sufficient terminal capacity is developed in line with demand. Secure sufficient space for terminal amenities.
14. Project Description	15. Socio-economic consideration
 Survey demand for the expanded passenger terminal. Design an expanded passenger terminal. Construct a new/expanded passenger terminal. 16. Relevant project(s) 	Social impacts – positive impacts are expected, including increased passenger satisfaction. Natural Environment – Positive impacts are expected, including reduced need for air conditioning with modern terminal design.
 Airport facilities & equipment master plan and Airport system digitization (Code A002) – facilities & equipment need to be selected in line with the master plan and policy for airport system digitization. 	 3) Pollution – positive impacts are expected, including lower emissions due to modern energy cycle facilities. 4) Environmental Impact Assessment (EIA) – EIA is required to determine a proper site for the terminal.



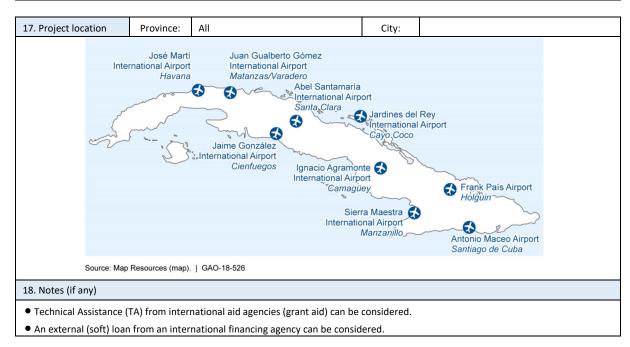
(2027 - 2030)

1. Project Code	A00	06 2. Project Title		Air Freight Logistics Pr	ocess Digitizati	on Project		
3. Implementation Agency MITRANS, CACSA			4. Implement	ation period				
5. Project cost (bud	dget)	250 ו	250 million CUP (10 million USD)		Start	2023	End	2026

6. Source of finance ⊠ State budge		et 🗵 External financing agencies		☐ Private investors			
	☐ Transport Planning ☐ Road/Bridge ☐ Railway		☐ Logistics/Cargo	☐ Logistics/Cargo			Immediate
			☐ Bus passenger transport				(2022 – 2023)
7. Sector			☐ Environment		8. Project	\boxtimes	Short-term
✓ Aviation		Institution/Re	gulation	Priority		(2022 – 2026)	
	☐ Maritime		Relevant busii	ness and others			Medium-term

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.1	2.1.1	2.1.1.1~3
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of project	13. Expected Benefits/Outcomes
Digitization of air freight logistics process	More efficient air freight logistics
14. Project Description	15. Socio-economic consideration
 Fully establish classification and codification of products. Install efficient logistics management system. 	Social impacts – positive impacts are expected, including improved delivery speed and quality.
16. Relevant project(s)	2) Natural Environment – lower emissions are expected with
Not applicable	new equipment.
	3) Pollution – positive impacts are expected, including lower
	emissions due to more efficient operation.
	4) Environmental Impact Assessment (EIA) – not required

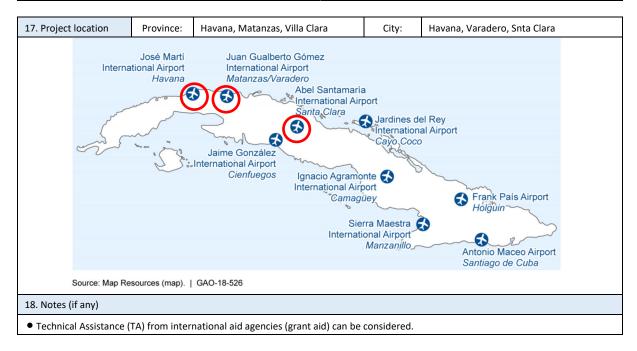


1. Project Code	A00	7	2. Projec	t Title	Major airports technical assistance for ground handling (passenger/ramp handling)							
3. Implementation Agency MITRANS, CACSA 4. Implementation period												
5. Project cost (bud	dget)	75 mi	illion CUP	(3 millio	n USD)		St	tart	202	End 2026		
6. Source of finance	e	⊠ Sta	ate budge	t			financi	ing agenc	ies	□ Pr	ivate investors	
	☐ Trans	port Planning ☐ Logistics/Carg								Immediate (2022 – 2023)		

	☐ Transport Planning	☐ Logistics/Cargo		\boxtimes	Immediate
	☐ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7. Sector	☐ Railway	☐ Environment	8. Project	\boxtimes	Short-term
7. Sector		Institution/Regulation	Priority		(2024 – 2026)
	☐ Maritime	Relevant business and others			Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.2	1.2.1	1.2.1.1~5
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

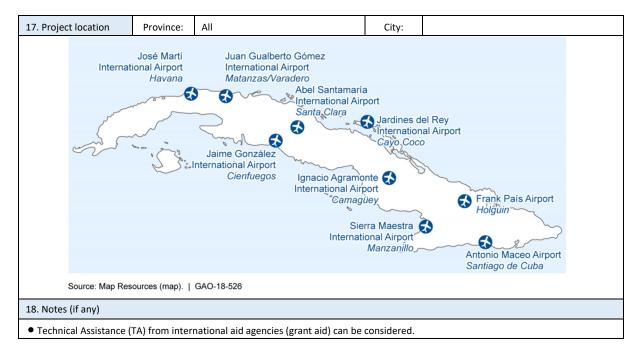
12. Purpose of project	13. Expected Benefits/Outcomes
Create a training program for ground handling	Develop high standard training program.
(passenger/ramp handling).	Train qualified staff.
 Train staff for ground handling 	Contribute to on-time-performance.
 Establish a structure to maintain handling quality. 	 Boost passenger satisfaction with quality services.
14. Project Description	15. Socio-economic consideration
Review existing ground handling procedures.	1) Social impacts – positive impacts are expected, including more
 Enhance existing ground handling training programs. 	efficient GSE operations.
 Update existing manuals & regulations for ground handling. 	2) Natural Environment – no significant impacts are expected.
16. Relevant project(s)	3) Pollution – no significant impacts are expected.
• GSE procurement project (Code 03) – needs to be implemented before this project.	4) Environmental Impact Assessment (EIA) – not required.



1. Project Code	A008 2. Projec			ct Title	Aviation	sector sustai	nabi	lity master	plan dev	elopm	ent project	
3. Implementation	Agency	MITE	RANS, CAC	SA			4.	Implement	ation per	iod		
5. Project cost (bud	dget)	50 m	illion CUP	(2 millio	n USD)			Start	202	.3	End	2025
6. Source of finance State budge			et			fina	ncing agend	cies	□ Pr	ivate investors		
	☐ Trans	port Pl	anning	☐ Logi	stics/Carg	0					Immediate	
	☐ Road/	/Bridge	:	☐ Bus passenger transport						(2022 – 2023)		
7. Sector	☐ Railw	ay		☐ Envi	ironment			8. Project		\boxtimes	Short-term	
7. 30000		ion		Institution/Regulation			Priority			(2024 – 2026)		
	☐ Maritime Relevant bus		evant busi	ness and othe	rs				Medium-term			
									(2027 – 2030)			

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security	3.1	3.1.1, 3.1.2, 3.1.3	31.1.1, 3.1.2.1~2,
			3.1.3.1~2
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

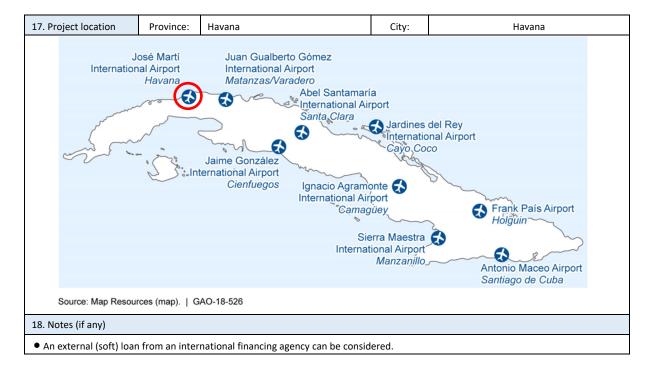
12. Purpose of project	13. Expected Benefits/Outcomes
Contribute to sustainable aviation sector development.	Sustainable aviation sector development plan
	Attract customers and investors.
14. Project Description	15. Socio-economic considerations
Survey global environmental trends in aviation.	Social impacts – positive impacts are expected, including
Develop a policy for Cuba's aviation sector	enhanced national reputation.
 Develop a mitigation and adaptation plan. 	2) Natural Environment – positive impacts, including protecting
16. Relevant project(s)	natural resources, are expected.
This plan should precede procurement and infrastructure	3) Pollution – positive impacts are expected, including lower
development projects.	emissions.
, , ,	4) Environmental Impact Assessment (EIA) – not needed.



1. Project Code	A00	A009 2. Project Title Development of in						ative logistics warehouse (Havana)						
3. Implementation	Agency	MITR	ANS, CAC	SA			4.	Implementa	ation per	iod				
5. Project cost (bu	dget)	1.25	billion CUI	P (50 mil	lion USD)			Start	202	5	End	2028		
6. Source of finance	e	⊠ St	ate budge	et 🗵 External fina				ncing ageno	encies					
	☐ Trans	port Pl	anning	☐ Logi	stics/Cargo	0					Immediate			
	☐ Road	/Bridge	2	☐ Bus	passenger	transport					(2022 – 2023)			
7. Sector	☐ Railw	ay		☐ Envi	ronment			8. Project			Short-term			
7. 30000		ion		Inst	itution/Re	gulation		Priority			(2024 – 2026)			
	☐ Marit	ime		Rele	Relevant business and others					\boxtimes	Medium-term			
											(2027 – 2030)			
				· · · · · ·	•				•					
				_										

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.2	2.2.4	2.2.4.1~4
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

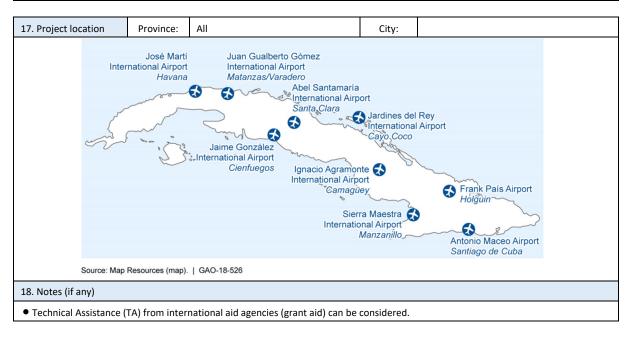
12. Purpose of the project	13. Expected Benefits/Outcomes
Establish an efficient logistics chain based on an innovative	Install innovative warehouse
warehouse.	Improve air freight throughput
14. Project Description	15. Socio-economic considerations
 Create an air freight demand forecast. Design efficient warehouse in line with air freight demand 	Social impacts – positive impacts are expected, including improved logistics chain and better-quality services.
forecast.	2) Natural Environment – no significant impact is expected.
Build a highly automated warehouse.	3) Pollution – no significant impact is expected.
16. Relevant project(s)	4) Environmental Impact Assessment (EIA) – EIA might be
Logistics Process Digitization (Code A006) – The warehouse	required since a new building is to be constructed.
needs to be based on digitized logistics.	



1. Project Code	A010)	2. Projec	ct Title								
3. Implementation	Agency	MITR	ANS, CAC	SA			4. I	Implementa	ation per	iod		
5. Project cost (bud	lget)	25 mi	llion CUP	(1 millio	n USD)			Start	202	3	End	2025
6. Source of finance	nance 🗵 State budget 🗵 Externa					finar	ncing agenc	ies	□Pr	ivate investors		
	☐ Trans	port Pla	anning	☐ Logi	stics/Carg	0					Immediate	
	☐ Road/	Bridge/		☐ Bus	passenger	transport					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Envi	ironment			8. Project		☑ Short-term		
7. 3000		ion		Inst	itution/Re	gulation		Priority		(2024 – 2026)		
	☐ Marit	ime		Relevant business and other			rs				Medium-term	
											(2027 – 2030)	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.3	2.3.1	2.2.3.1~2
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			_
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Preparation of an updated aircraft renewal plan	 Improve national airline business (increase revenue) Improve efficiency in managing aircraft (improve availability ratio) Save fuel by using new aircraft
14. Project Description	15. Socio-economic consideration
 Review existing aircraft renewal plan Update demand forecast Update aircraft procurement/lease plan 	Social impacts – positive impacts expected, e.g., increased employment opportunities. Natural Environment – the impact of increased air operation
16. Relevant project(s)	may need to be considered.
 Climate change mitigation and adaptation plan (Code A008), GSE procurement project (Code A003), Development of sustainable airport services improvement plan (Code A015). 	Pollution – Using new aircraft is expected to save fuel and reduce GHG emissions. Environmental Impact Assessment (EIA) – not required



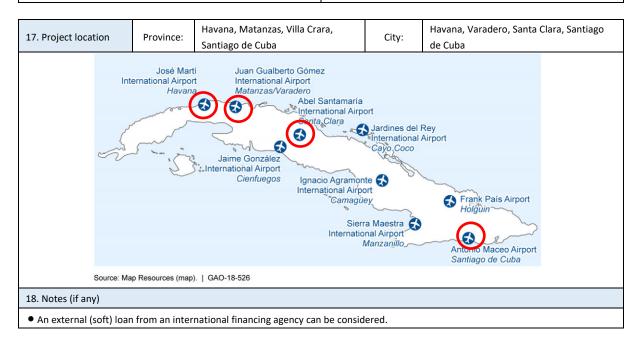
☐ Maritime

1. Project Code	A013	L 2. Proje	2. Project Title Upgrading air traffic control system & operation project (HAV, VRA, SCU, SN								SCU, SNU)
3. Implementation	Agency	MITRANS, CAC	CSA			4. In	nplementa	ation per	iod		
5. Project cost (bu	dget)	250 million CU		,	Start	202	3	End	2028		
6. Source of finance	urce of finance 🗵 State budget					financing agencies					
	☐ Trans	port Planning	☐ Logis	stics/Cargo	0					Immediate	
	☐ Road/	'Bridge	☐ Bus p	transport					(2022 – 2023)		
7 Contor	☐ Railwa	ay	⊠ Envi			8. Project		\boxtimes	Short-term		
7. Sector		ion	Insti	tution/Re	gulation		Priority			(2024 - 2026)	

Relevant business and others

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security	3.2	3.2.1	3.2.1.1~3
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

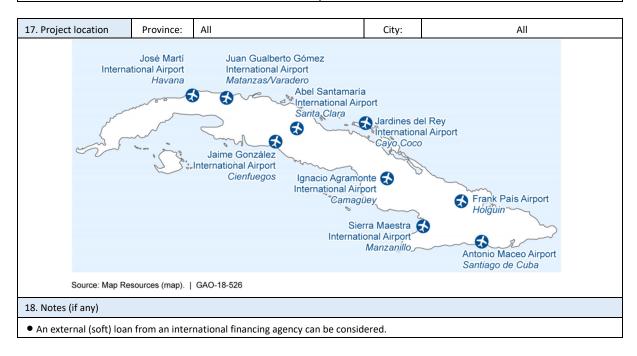
12. Purpose of project	13. Expected Benefits/Outcomes
Ensure a safe air navigation system	 Increase the safety of air navigation system
	Increase take-off/landing capacity
	Boost airport revenues
14. Project Description	15. Socio-economic consideration
• CNS/ATM system plan is developed in line with ICAO plans such	1) Social impacts – positive impacts are expected, e.g., increased
as GNAP (Global Air Navigation Plan) &	employment opportunities.
CAR/SAMCaribbean/South American Regional Plan	2) Natural Environment – not relevant
• New equipment/ operation systems to be installed based on	3) Pollution – smooth air traffic operation may lead to fuel
the plan	savings & reduced GHG emissions.
16. Relevant project(s)	4) Environmental Impact Assessment (EIA) – not required.
Human resource capacity building plan project (Code A013)	



1. Project Code	A01	2	2. Projec	ct Title Upgrading the safety management system (SMS) & safety security equipment						quipment		
3. Implementation	Agency	MITR	ANS, CAC	SA			4.	Implementa	ation per	iod		
5. Project cost (but	dget)	500 r	million CU	P (20 mil	llion USD)			Start	202	3	End	2027
6. Source of financ	e	⊠ St	ate budge	et					ies	☐ Pr	ivate investors	•
	☐ Trans	port Pl	anning	☐ Logi	istics/Carg	0					Immediate	
	☐ Road,	/Bridge	:	☐ Bus	passenger	transport					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Envi	ironment			8. Project		\boxtimes	Short-term	
7. Sector		ion		Inst	gulation	Priority				(2024 – 2026)		
	☐ Marit	ime		Rele	Relevant business and other					\boxtimes	Medium-term	
											(2027 – 2030)	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security	3.3, 3.4	3.3.1, 3.3.2, 3.4.1, 3.4.2	3.3.1.1~2, 3.3.2.1~2,
			3.4.1.1~3, 3.4.2.1~2
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

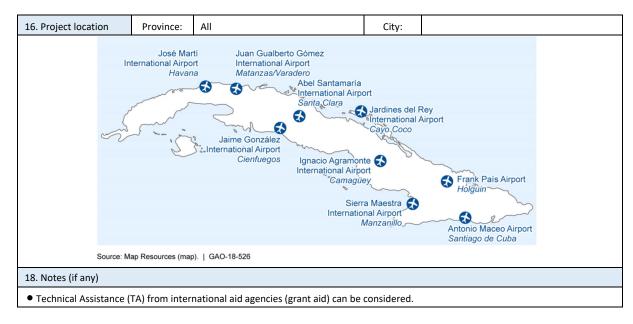
12. Purpose of project	13. Expected Benefits/Outcomes
Secure comprehensive airport safety and security structure	Develop a safety manual in line with ICAO standards
	Install equipment in line with manual
	Secure safety & security at airports
14. Project Description	15. Socio-economic consideration
 Develop manual in line with ICAO ANNEX 19 & ICAO Safety 	1) Social impacts – positive impacts are expected, e.g., improved
Management Manual	safety at airports.
• Develop equipment procurement plan in line with ICAO manual	2) Natural Environment – no significant impact is expected.
• Install equipment in line with the equipment procurement plan	3) Pollution – no significant impact is expected.
16. Relevant project(s)	4) Environmental Impact Assessment (EIA) – not needed.
Human resources capacity building plan project (Code A013)	



1. Project Code	A01	2. Project Title Human resources of				resources cap	acity	/-building p	lan proje	ct		
3. Implementation Agency MITRANS, CACSA							4.	Implement	ation per	iod		
5. Project cost (budget) 50 million CU			nillion CUP	(2 millio	n USD)			Start	202	3	End	2026
6. Source of finance			tate budge	et	t 🗵 External fin			nancing agencies		□Pr	ivate Investors	
	·											
	□ Trans	port P	lanning	☐ Logi	stics/Carg	0				\boxtimes	Immediate	
	☐ Road,	/Bridge	9	☐ Bus	passenger	transport					(2022 – 2023)	
7. Sector	☐ Railw	ay		☐ Envi	☐ Environment			8. Project			Short-term	
7. 30000		ion		Inst	itution/Re	gulation		Priority			(2022 – 2026)	
☐ Maritime			Rele	evant busi	ness and othe	ers				Medium-term		
											(2027 – 2030)	

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.2	1.2.1	1.2.1.1~5
2. Transport infrastructure development			
3. Environment, safety, and security	3.5	3.5.1	3.5.1.1~3
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Maintain high-quality human resources	Introduce the Competency-Based Training (CBT) concept
Ensure human resources management plan	recommended by ICAO
	Develop training program
	Train well-qualified persons
	Increase service quality of air transportation
14. Project Description	15. Socio-economic consideration
Analyze training requirements	1) Social impacts – quality human resources are secured
Design competency-based training program	2) Natural Environment – not relevant
Develop training and assessment materials	3) Pollution – improved awareness among people in the air
16. Relevant project(s)	sector
All procurement, infrastructure development, and technical	4) Environmental Impact Assessment (EIA) – not required
assistance projects need to align with this CBT concept.	



1. Project Code	A01	4	2. Projec	t Title	Study on	state & non-	ate & non-state investment in the aviation sector							
3. Implementation Agency MITRANS, CACSA				SA			4.	Implement	ation per	iod				
5. Project cost (bud	dget)	50 mi	llion CUP	(2 millio	n USD)			Start	202	3	End	2027		
6. Source of finance			t			fina	ncing agend	cies	□ Pr	ivate investors				
	☐ Transport Planning ☐			☐ Logi] Logistics/Cargo						Immediate			
	☐ Road	/Bridge		☐ Bus	☐ Bus passenger transport						(2022 – 2023)			
7 Castan	☐ Railw	ay		☐ Envi	☐ Environment			8. Project		\boxtimes	Short-term			
7. Sector		ion		Inst	Institution/Regulation			Priority			(2024 – 2026)			
	☐ Marit	ime		⊠ Rele	evant busii	ness and othe	rs			\boxtimes	Medium-term			
											(2027 – 2030)			
	-									,				
	Key Areas	;		9. (Objective (code)	1	10. Strategy	(code)		11. Goal (cod	e)		
1. Planning and coo	1. Planning and coordination													
2. Transport infras	Transport infrastructure development													
3. Environment, sa	fety, and	security	,					•				•		

4.1.1

6.1.1, 6.2.1

4.1.1.1~2

6.1.1.1~3, 6.2.1.1~2

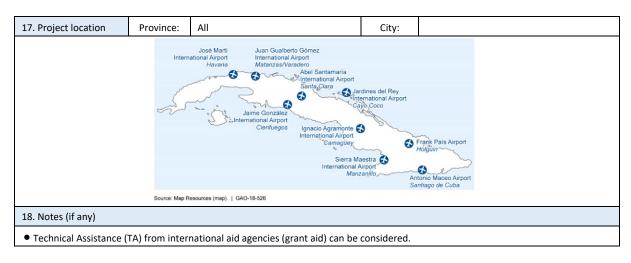
4.1

6.1, 6.2

4. Transport service and industry development

5. Transport pricing and resource allocation6. Institutional and regulatory development

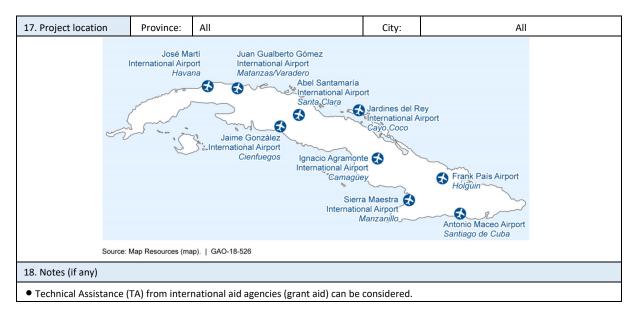
12. Purpose of project	13. Expected Benefits/Outcomes
• Identify business areas in the civil aviation sector in which state and non-state companies/investors can participate	State/non-state companies become involved in airport-related business
• Prepare guidelines to invite state and non-state companies	Increased airport revenue
	Upgrade various airport services
14. Project Description	15. Socio-economic consideration
 Benchmark study of business opportunities in the civil aviation sector (case studies in countries such as Canada, China, Japan, Mexico, Panama, Spain, etc.) Study business opportunities at international airports in Cuba Feasibility studies on priority business development projects that state and non-state companies can implement Study on PPP arrangements to attract FDI Institutional & legal/regulatory framework study to encourage FDI 	 Social impacts – positive impacts such as increased employment opportunities are expected. Natural Environment – no significant impact is expected. Pollution – no significant impact is expected. Environmental Impact Assessment (EIA) – not required.
16. Relevant project(s)	
• Airport facility and equipment master plan project (A001)	



1. Project Code	A01	A015 2. Proje			Sustaina	ble Airport Se	oort Services Improvement Plan						
3. Implementation Agency MITRANS, CACSA						4.	Implement	ation per	iod				
5. Project cost (budget) 50 million CUI				(2 millio	n USD)			Start	202	3	End	2025	
6. Source of finance			t					cies	☐ Private investors				
	☐ Trans	port Pl	anning	☐ Logi	stics/Carg	0				\boxtimes	Immediate		
	☐ Road	/Bridge	:	☐ Bus	passenger	transport					(2022 – 2023)		
7. Sector	☐ Railw	ay		☐ Envi	☐ Environment			8. Project		\boxtimes	Short-term		
7. Sector		ion		Inst	itution/Re	gulation		Priority			(2024 – 2026)		
	☐ Marit	ime		Rele	Relevant business and others] Medium-term		
											(2027 – 2030)		

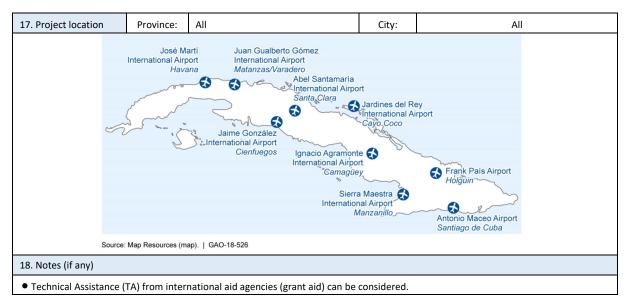
Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development	4.2	4.2.1	4.2.1.1~2
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of project	13. Expected Benefits/Outcomes
Establish sustainable/eco-friendly airport operation maintenance systems.	 Upgrade airport services in a sustainable manner Contribute to mitigation of climate change and SDGs Develop a green airport concept
14. Project Description	15. Socio-economic consideration
Conduct case studies on airport service improvements Conduct risk assessment study and implement identified climate change mitigation measures Develop long-term green airport concept using advanced technologies	1) Social impacts – no significant impact is expected. 2) Natural Environment – reduced emissions are expected due to new equipment in line with the green airport concept. 3) Pollution – positive impacts are expected, including reduced emissions due to eco-friendly facilities and equipment.
16. Relevant project(s)	4) Environmental Impact Assessment (EIA) – not needed.
All procurement & infrastructure development projects need to align with the green airport concept	



1. Project Code	A01	6 2. Pro	ect Title	Strategi	Strategic Pricing System Introduction Plan Project								
3. Implementation	Agency	MITRANS, CA	CSA				4.	Implementa	ition per	riod			
5. Project cost (budget) 25 million CUP (1 million USD)				on USD)				Start	202	23	End	2025	
6. Source of finance ☑ State budget			get		⊠ Ext	ternal f	inar	ncing agenc	ies	□ Pri	vate investors		
	☐ Transport Planning ☐ Logistics			istics/Carg	0						Immediate		
☐ Road/Bridge [☐ Bus	☐ Bus passenger transport							(2022 – 2023)		
☐ Railway		☐ Env	☐ Environment				8. Project			Short-term			
7. Sector		Aviation		Institution/Regulation				Priority			(2024 – 2026)		
	☐ Marit	ime	Rel	Relevant business and other			s				☐ Medium-term		
											(2027 – 2030)		
			·							·			
	Key Areas		9.	Objective	(code)		10. Strategy (code)				11. Goal (code	e)	
1. Planning and co	ordination	1											
2. Transport infras	tructure d	evelopment											
3. Environment, sa	fety, and	security											
4. Transport servic	e and ind	ustry developm	ent										
· · · · · · · · · · · · · · · · · · ·			n 5.:	5.1, 5.2, 5.3			5.1.1~2, 5.2.1, 5.3.1~2				5.1.1.1~4, 5.2.	1, 53.1.1	~3
6. Institutional and	6. Institutional and regulatory development												
			•										
12 Durnoss of the	project				1	2 Evn	octo	d Donofits/	Outcom	0.0			

12. Purpose of the project	13. Expected Benefits/Outcomes
• Creating a better pricing system responsive to market demand.	 Increased airport and airfare revenue should cover airport operations and maintenance budgets. Set affordable/reasonable prices for Cubans
14. Project Description	15. Socio-economic consideration
 Conduct benchmark studies on pricing for airfares, airport tax, and other taxable items, considering Caribbean/S. American countries and major international airlines The new airfare pricing system is to be competitive while also providing reasonable/affordable pricing for Cubans Design a new airport taxation system 	1) Social impacts – no significant impact is expected 2) Natural Environment – no significant impact is expected 3) Pollution – no significant impact is expected 4) Environmental Impact Assessment (EIA) – not required
16. Relevant project(s)	
 Development of Investment Plan Project (A014) and Promotion of Aircraft Renovation Plan (A010) 	

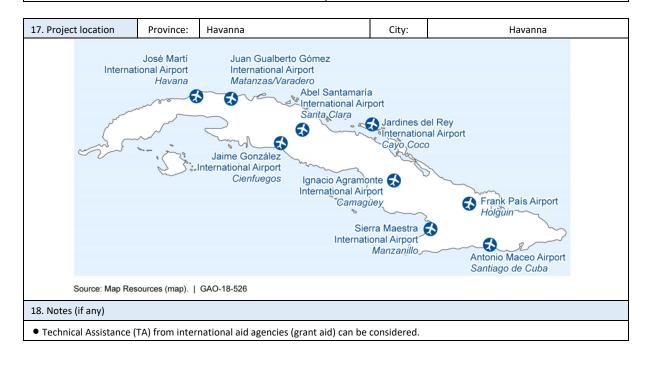


2. Transport infrastructure development 3. Environment, safety, and security

4. Transport service and industry development 5. Transport pricing and resource allocation

1. Project Code	A01	7	7 2. Project Title U			Upgrading of aviation sector regulatory framework								
3. Implementation Agency MITRANS, CACSA				SA			4.	Implementa	ation peri	iod				
5. Project cost (budget) 25 million CUP (1 m					n USD)			Start	2023	3	End	2026		
6. Source of finance				t			fina	ancing agenc	ies	□ Pri	ivate investors			
	☐ Trans	port Pl	Planning ☐ Logistics/Cargo			0				\boxtimes	Immediate			
	☐ Road	/Bridge	:	☐ Bus	passenger	transport					(2022 – 2023)			
7 (☐ Railw	ay		☐ Env	☐ Environment			8. Project		\boxtimes	Short-term			
7. Sector		ion		Inst	Institution/Regulation			Priority			(2024 – 2026)			
	☐ Marit	ime		Rel	Relevant business and others						Medium-term			
											(2027 – 2030)			
	Key Areas			9.	9. Objective (code)			10. Strategy (code)			11. Goal (code)			
1. Planning and co	Planning and coordination				•			•	•					

6. Institutional and regulatory development	6.3		6.3.1	6.3.1.1~3			
12. Purpose of the project		13. Expected Benefits/Outcomes					
Upgrade existing regulations on airport safety	operations	 Update IACC regulatory framework in line with ICAO standards and recommended practices Update regulations for air navigation and airport operations in line with ICAO standards and recommended practices 					
14. Project Description		15. Socio-economic consideration					
 Review the latest ICAO standards and recomm (SARPs) Review/update existing regulations Clarify content/timing for future revisions 	ended practices	 Social impacts – no significant impact is expected Natural Environment – no significant impact is expected Pollution – no significant impact is expected Environmental Impact Assessment (EIA) – not required 					
16. Relevant project(s)							
• NA							



emissions due to modern energy cycle facility

4) Environmental Impact Assessment (EIA) – EIA is required to

											· · · · · · · · · · · · · · · · · · ·
1. Project Code	A01	8 2. Pro	ject Ti	itle Santa Cla	ıra Internatio	nal	Airport facil	ity expan	sion p	roject	
		1									
3. Implementation Agency MITRANS					4.	Implement	ation per	iod			
5. Project cost (bu	dget)	2.5 billion Cl	JP (10	0 million USD)			Start	202	6	End	2030
6. Source of finance	ce		get			fina	ancing agend	cies	⊠ Pr	ivate investors	
							•		1		
		port Planning		Logistics/Cargo)					Immediate	
	☐ Road			Bus passenger	transport					(2022 – 2023)	
7. Sector	☐ Railw	'] Environment			8. Project			Short-term	
				Institution/Reg			Priority			(2024 – 2026)	
	☐ Marit	time		Relevant busir	iess and othe	rs				Medium-term	
					<u> </u>	(2027 – 2030)					
Key Areas 9. Objective (cod							10. Strategy	(code)		11. Goal (cod	e)
1. Planning and co	<u> </u>			,	·		<u> </u>	· ,		·	•
2. Transport infras	structure d	evelopment		2.2		2.2.2 2.2.5					
3. Environment, sa	afety, and	security									
4. Transport servi	ce and indi	ustry developn	nent								
5. Transport pricir											
6. Institutional and	d regulato	ry developmen	t								
12. Purpose of the	project				13. Exp	13. Expected Benefits/Outcomes					
• Increased passe	enger term	inal capacity n	eeded	d to meet dema	nd • Expa						
 Airside capacity 					2040)					
					• Prov	ide	sufficient te	erminal sp	oace fo	r passenger am	enities
14. Project Description				15. Soc	15. Socio-economic consideration						
Conduct feasibility study on the expansion of passenger					· ·				-	are expected, in	cluding
terminal and ai					1		ed passenge				
• Conduct basic of	_	_	n stud	lies on passenge	· ·						
terminal and ai						including reduced air conditioning need with modern terminal					
Construct expa	· ·	enger terminal	and a	irside facilities		design					
16 Relevant proje	ct(s)				3) Pol	3) Pollution – positive impacts are expected, including lower					



 \bullet Airport facility & equipment master plan and airport system

digitization (A002)

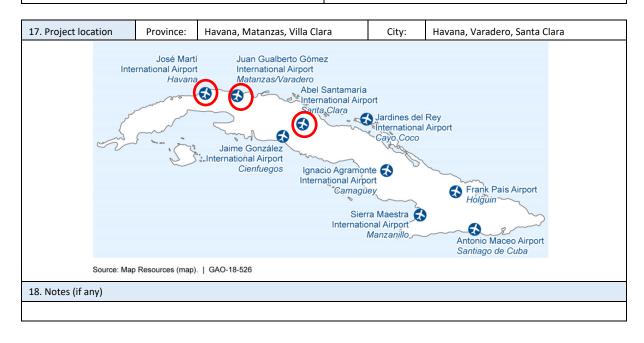
1. Project Code	A019)	2. Projec	t Title	Introduct	ion of facilit	ies a	and equipm	ent adjus	ted to	universal design	•
3. Implementation	n Agency	MIT	RANS				4.	Implement	tation per	iod		
5. Project cost (budget) 20 million USD)				Start	202	.3	End	2030
6. Source of finance	ce	☐ S1	tate budge	et			fina	ncing agen	cies	□ Pr	ivate investors	
☐ Road/Bridge				☐ Bus☐ Env	☐ Logistics/Cargo☐ Bus passenger transport☐ Environment☐ Institution/Regulation☐ Relevant business and other			8. Project ⊠ Priority		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas			9. (Objective (c	ode)	10	O. Strategy ((code)		11. Goal (code)
1. Planning and co	ordination											
2. Transport infrastructure development												
3. Environment, safety, and security 3.2							3.	2.1				
4. Transport service and industry development												
5. Transport pricir												
6. Institutional and	d regulatory	y deve	lopment				<u> </u>					
12. Purpose of the	project					13. Exp	ect	ed Benefits	/Outcome	es		
 Introduction 	of universa	ally de	signed fac	ilities ar	nd equipmer	nt • A	All passengers will be able to enjoy the airport comfortably					
14. Project Descri	otion					15. Soc	15. Socio-economic consideration					
 Some facilities 	es and equi	pmen	t are not s	uitable [·]	for	1) Soc	Social impacts – Positive impact is expected.					
passengers v	•	•				'	Natural Environment – significant impacts are not expected.					
Spanish)						3) Po	3) Pollution – significant impacts are not expected.					
 A detailed st carried out. 	udy and de	sign w	ith cost e	stimatio	n will be	4) En	4) Environmental Impact Assessment (EIA) – Not required.					
16 Relevant projec	rt(c)											
• The airport f	• •	d equi	pment Ma	ster Pla	n (Code							
A001) - shou					•							
17. Project locatio	n Pr	ovince	e. Hava	na Mai	tanzas, Villa	Clara	1	City:	Havana	Varad	dero, Santa Clara	
•	Jo: Internationa	sé Ma	rtí ort	Juan C	Gualberto Go ational Airpoi zas/Varaderi	omez t		·		, - 3. 4	5,55.00	



1. Project Code	A020		2. Project Title		Modernization of facilities and fuel equipment/truck project (major three airports)					ct (major	
3. Implementation	Agency	CACSA, MITRA	INS		4.	Implementa	ation per	iod			
5. Project cost (budget) 375 million CL			JP (15 million USD)			Start	202	3	End	2025	
6. Source of finance			et	□ External financing agencies			□Pr	☐ Private investors			
	☐ Trans	port Planning	0					Immediate			
	☐ Road,	/Bridge	☐ Bus passenger transport					(2022 – 2023)			
7. Sector	☐ Railw	ay	☐ Environment			8. Project	\boxtimes	Short-term			
7. Sector		ion	Institution/Re	gulation		Priority			(2024 – 2026)		
	☐ Marit	ime	Relevant busi	Relevant business and others					Medium-term		
									(2027 – 2030)		
						•	•				

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development	2.2, 2.4	2.2.3, 2.4.1	2.2.3.1~4, 2.2.4.1~4
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Follow the global standard that fuel truck filters should have.	Fulfillment of established standards for fuel supply.
Replacement of fuel trucks.	Operation of appropriate fuel trucks/equipment.
14. Project Description	15. Socio-economic consideration
Review of IATA fuel supply standards.	1) Social impacts – significant impacts are not expected.
Preparation of the necessary documents for the procurement	2) Natural Environment – significant impacts are not expected.
process, taking into account the management of spare parts.	3) Pollution – significant impacts are not expected.
• Implementation of the procurement process such as tendering.	4) Environmental Impact Assessment (EIA) – Not required.
 Training by the manufacturer on the operation and 	
maintenance of the new equipment.	
16 Relevant project(s)	
NA	

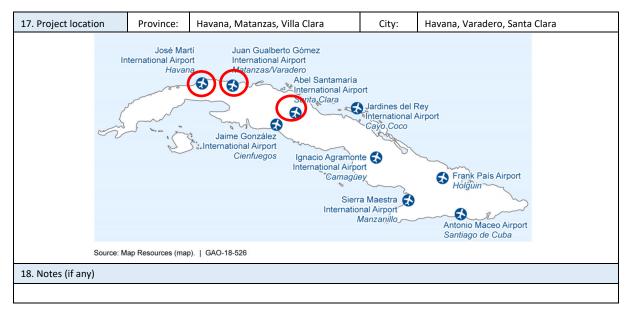


3. Environment, safety, and security

4. Transport service and industry development5. Transport pricing and resource allocation6. Institutional and regulatory development

1 Drainet Code	402	, [2 Drains	+ Ti+lo	Drainet f	or the presur		nt of tooks	مامجنجما			
1. Project Code	A02	1	2. Projec	t mie	Project for the procurement of technological e				equipri	ient.		
3. Implementation Agency CACSA, MITRANS				NS			4.	Implement	ation per	iod		
5. Project cost (but	dget)	750 n	nillion CUI	P (30 mil	llion USD)			Start	202	3	End	2026
6. Source of financ	e	⊠ Sta	ate budge	t			fina	ncing agenc	cies	□ Pr	ivate investors	·
	☐ Trans	port Planning			istics/Carg	0					Immediate	
	☐ Road,	ad/Bridge □			☐ Bus passenger transport						(2022 – 2023)	
7. Sector	☐ Railw	□ Railway □			☐ Environment			8. Project			Short-term	
7. 3000		ion		Inst	Institution/Regulation Relevant business and others			Priority	Priority		(2024 – 2026)	
	☐ Marit	ime		Rele			rs				Medium-term	
											(2027 – 2030)	
Key Areas			9. 0	9. Objective (code)		1	10. Strategy (code)			11. Goal (code)		
1. Planning and co	1. Planning and coordination											
2. Transport infrastructure development				2.2			2	2.2.2	•		2.2.2.1~2.2.2	.7

12. Purpose of the project	13. Expected Benefits/Outcomes
 Replace technological equipment to offer better services to customers (Passengers/Airlines). 	 Increased airport capacity due to high performance. High customer (passenger) satisfaction due to a pleasant airport experience.
14. Project Description	15. Socio-economic consideration
 Study the current status of facilities and equipment, such as passenger boarding bridges, baggage handling systems, security checkpoints, immigration, check-in, etc. Development of a budget request. Choose the appropriate procurement procedure. Procurement of technological equipment 	 Social impacts – significant impacts are not expected. Natural Environment – significant impacts are not expected. Pollution – significant impacts are not expected. Environmental Impact Assessment (EIA) – Not required.
16 Relevant project(s)	
The airport facilities and equipment Master Plan (Code A001) - should be implemented in line with this project.	



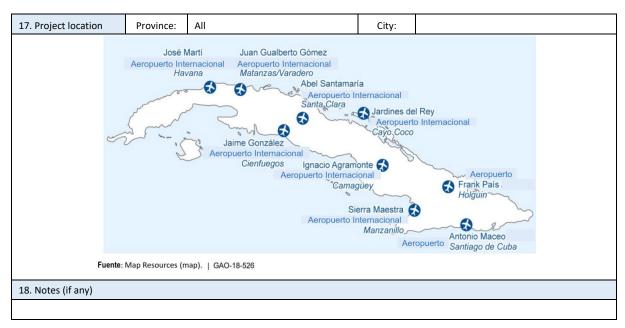
1. Project Code A022	2. Project Title	Technical assistance for the development of a plan to increase non-aeronautical revenues
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3. Implementation Agency	CACSA, MITRANS	4. Implementation period					
5. Project cost (budget)	50 million CUP (2.0 million USD)	Start	2023 End			2025	
6. Source of finance	State budget ■		financing agend	cies	☐ Pri	ivate investors	

	☐ Transport Planning	☐ Logistics/Cargo			Immediate
	☐ Road/Bridge	☐ Bus passenger transport			(2022 – 2023)
7 Cookers	☐ Railway	☐ Environment	8. Project	\boxtimes	Short-term
7. Sector		Institution/Regulation	Priority		(2024 – 2026)
	☐ Maritime	Relevant business and others			Medium-term
					(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination			
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development	6.1	6.1.1	6.1.1.1~6.1.1.3

12. Purpose of the project	13. Expected Benefits/Outcomes
Establish advanced non-aeronautical revenue management	Advanced airport management is achieved
knowledge	Non-aeronautical revenues will be increased
	Customer (passenger/airlines) satisfaction is increased
14. Project Description	15. Socio-economic consideration
Introduce the experiences of management in other airports	Social impacts – significant impacts are not expected
Knowledge of tenant management is transferred	2) Natural Environment – significant impacts are not expected
Knowledge of airport/passenger services is transferred	3) Pollution – significant impacts are not expected
Knowledge of facilities management transferred	4) Environmental Impact Assessment (EIA) – Not required
16 Relevant project(s)	
NA	



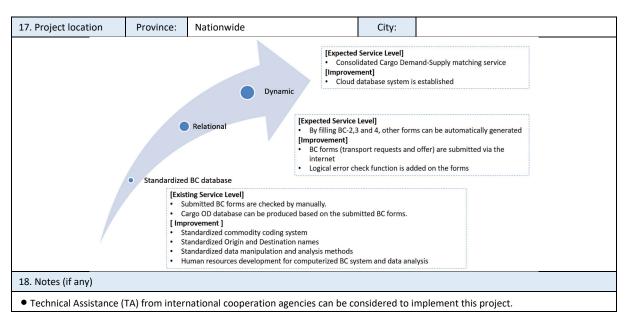
Project for Formulation	of National	Transport	Master	Plan	in the	Republic	of Cub	ра
Final Report								

Chapter 6

Appendix A6: Logistics Sector

1. Project Code	LG001		2. Projec	t Title	tle Digital Transformation (DX) of the BC system Phase 1								
3. Implementation	Agency	MITR	ANS		4. Implementation period								
5. Project cost (but	dget)	50 m	illion CUP	(2.0 mi	illion USD)			Start	202	2	End	2025	
6. Source of finance	e	⊠ Sta	ate budge	et			fina	ncing agend	cies	☐ Fo	reign Investors		
									•				
7. Sector	□ Transp □ Road/E □ Railwa □ Aviatio □ Port/N	Bridge ay on		□ Logistics/Cargo □ Bus passenger transport □ Environment Institution/Regulation Relevant business and othe			rs	8. Project Priority			 ✓ Immediate (2022 – 2023) ✓ Short-term (2024 – 2026) ✓ Medium-term (2027 – 2030) 		
Key Areas		9.	9. Objective (code)		10. Strategy (code)				11. Goal (code)				
1. Planning and coordination 1.1,		1.1, 1.2, 1.3		3, 1.3.1~	~2 1.1.1.1~3, 1.2.1.1, 1.2.2.1, 1.2.3.1		2.1.1, 1.2.2.1,						
2. Transport infrastructure development			2.1	2.1		2.1.3				2.1.3.1, 2.1.3.2			
3. Environment, safety, and security													
4. Transport servic	e and indus	stry dev	velopmer	it		<u>'</u>		·					
5. Transport pricing	g and resou	urce alle	ocation										
6. Institutional and	l regulatory	develo	opment										

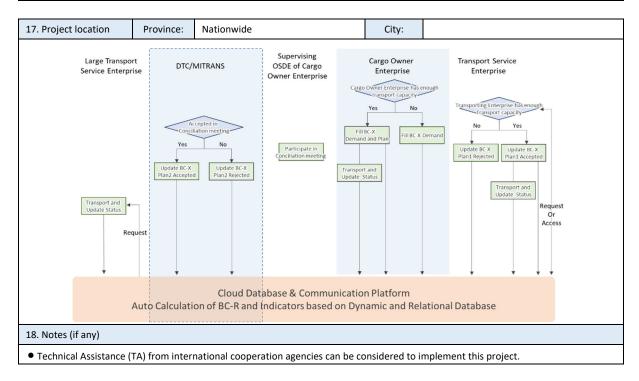
12. Purpose of the project	13. Expected Benefits/Outcomes				
 Standardize the existing Balance de Cargas (BC) database Establish a single platform (database) for commodity movement data collection and provision using ICT. 14. Project Description 	 Foundation is developed to update the existing BC system Time and other resources in balancing the cargo transport needs and the supply (transport means) are saved. Social-environmental consideration 				
 Standardize the commodity coding system using the Harmonized Commodity Description and Coding System (HS code) Standardize the location names (origin and destination places) Develop a set of standardized commodity movement analysis methods Develop an online data collection (BC form submission) and sharing system Establish a BC data management unit in MITRANS/staff training Relevant project(s) Project LG002 	1) Social impacts —no significant impacts are expected 2) Natural Environment — no significant impacts are expected 3) Pollution — no significant impacts are expected 4) Environmental Impact Assessment (EIA) — no need				



1. Project Code	LG002 2. Project			Title Digi	ital T	ransformation	n (DX	() of the BC	system P	hase 2	2	
3. Implementation Agency MITRANS							4. I	Implement	ation per	iod		
5. Project cost (bu	dget)	50 million CUP (2.0 million USD)						Start	2027		End	2030
6. Source of finance	nce 🗵 State budget					al financing agencies			oreign Investors			
7. Sector	☐ Road, ☐ Railw ☐ Aviat	vay		enge nent on/Re	r transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.1, 1.2, 1.3	1.1.2, 1.2.1~3, 1.3.1~2	1.1.2.1, 1.2.1.1, 1.2.2.2,
			1.2.3.2
2. Transport infrastructure development	2.1	2.1.3	2.1.3.1, 2.1.3.2
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
Cargo transport demand and supply (transport means) matching services become fully operational.	 Foundation is developed to update the existing BC system Time and other resources in balancing the cargo transport needs and the supply (transport means) are saved.
14. Project Description	15. Social-environmental consideration
 Cargo transport demand and supply (transport means) matching services are further enhanced using a cloud system The BC data management unit is further enhanced Staff training 	1) Social impacts –no significant impacts are expected 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need
16. Relevant project(s)	
Project LG002	



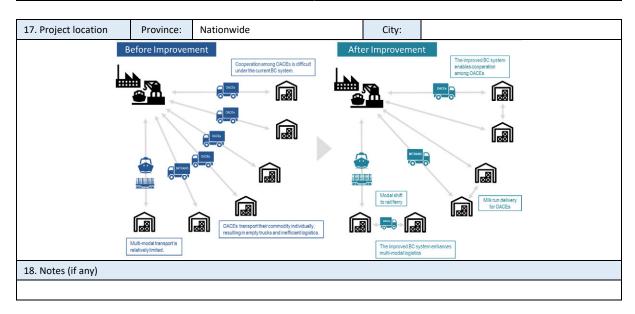
1. Project Code	LG003	2. Project Title	Cargo Transport Service Integration

3. Implementation Agency	MITRANS	4. Implementation period					
5. Project cost (budget)	60 million CUP (0.3 mi. USD per y	Start	2023 End			2030	
6. Source of finance	State budget ■ Compare the state of the	financing agend	ies	□ Fo	reign Investors		

		□ Transport Planning	□ Logistics/Cargo		\boxtimes	Immediate
		☐ Road/Bridge	\square Bus passenger transport			(2022 – 2023)
	7.6	☐ Railway	☐ Environment	8. Project	\boxtimes	Short-term
	7. Sector	\square Aviation	Institution/Regulation	Priority		(2024 – 2026)
		☐ Port/Maritime	Relevant business and others		\boxtimes	Medium-term
						(2027 – 2030)

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)		
1. Planning and coordination	1.1, 1.2, 1.3	1.1.2, 1.2.1~3, 1.3.1~2	1.1.2.1, 1.2.1.1, 1.2.2.2,		
			1.2.3.2		
2. Transport infrastructure development	2.1	2.1.3	2.1.3.1, 2.1.3.2		
3. Environment, safety, and security					
4. Transport service and industry development					
5. Transport pricing and resource allocation					
6. Institutional and regulatory development					

12. Purpose of the project	13. Expected Benefits/Outcomes
 Establish a consolidated logistics planning and coordination mechanism Provision of integrated cargo transport & storage services 	 Domestic and international cargo is efficiently transported Savings in resources (fuels, staff, trucks, etc.) are achieved.
14. Project Description	15. Social-environmental consideration
 Establish a high-level committee for logistics planning and coordination under MITRANS Establish a logistics planning and coordination center under the supervision of the committee The BC data management unit becomes a part of the logistics planning and coordination center Management of human resource development in the logistics sector 	1) Social impacts – positive impacts, such as increased qualified staff in the logistics sector, are expected. 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need
16. Relevant project(s)	
● LG001, LG002	



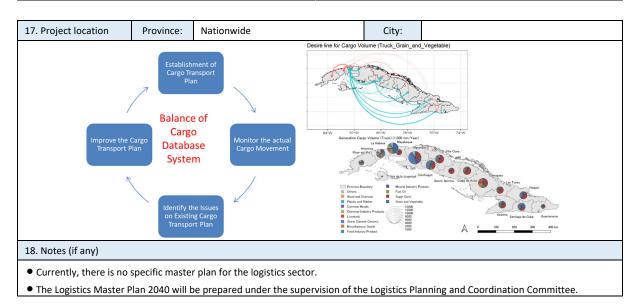
	1				1								
1. Project Code	LG004	2.	Project	Title	Human R	esouce (HR)	De	velopment in th	ne logis	tics se	ector		
3. Implementation Agency MITRANS							4. Implementation period						
5. Project cost (bu	dget)	60 millior	n CUP (0.3 mi.	USD per y	ear)		Start	202	3	End	2030	
6. Source of finance	ce	State I	budget				fin	ancing agencie	s	□ Fo	reign Investors		
7. Sector	☐ Road, ☐ Railw ☐ Aviat	•				transport	8. Project Priority				Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
					01: .: /			10.00			110 1/ 1	`	
1. Planning and co	Key Areas			1.3	Objective (code)		10. Strategy (c	ode)		11. Goal (code 1.3.1.1, 1.3.1.	·	
2. Transport infras			nt	1.5)		Ŧ	1.5.1 2			1.5.1.1, 1.5.1.	2	
3. Environment, sa		•											
4. Transport service			opment	:									
5. Transport pricin			•										
6. Institutional and	d regulator	y developr	nent										
12. Purpose of the	project					13. Exp	13. Expected Benefits/Outcomes						
• Increase the nu	mber of qu	ualified stat	ff in the	logist	ics sector		 The logistics business sector is enhanced The number of experts, professionals, and staff is increased 						
14. Project Descrip	otion							environmental					
Study the international best practices for human resource development in the logistics sector Prepare training programs, including engineering courses, information & communication technology (ICT), logistics business management & administration, etc.					staf 2) Nat 3) Poll	 Social impacts – positive impacts, such as increased qualified staff in the logistics sector, are expected. Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected Environmental Impact Assessment (EIA) – no need 							
 Provision of reg 		ng courses											
Overseas trainir	ng												
16. Relevant project(s)													
● LG001, LG002, L	-G003												
17. Project locatio	n P	rovince:	Natio	nwide				City:					
								•					
18. Notes (if any)													

1. Project Code	LG005	2. Project Title	Formulation of the National Logistic Master Plan 2040

3. Implementation Agency	MITRANS	4. Implementation period					
5. Project cost (budget)	75 million CUP (3 million USD)	Start	2024		End	2026	
6. Source of finance	State budget	financing agend	cies	□ Fo	reign Investors		

Key Areas	9. Objective (code)	10. Strategy (code)	11. Goal (code)
1. Planning and coordination	1.3	1.3.1~2	1.3.1.1, 1.3.1.2
2. Transport infrastructure development			
3. Environment, safety, and security			
4. Transport service and industry development			
5. Transport pricing and resource allocation			
6. Institutional and regulatory development			

12. Purpose of the project	13. Expected Benefits/Outcomes
• The National Transport Master Plan 2030 is updated, focusing on the logistics sector, with the planning horizon of 2040	Business opportunities for non-Cuban business entities are increased
14. Project Description	15. Social-environmental consideration
 Review of the National Transport Master Plan 2030 Update the socio-economic development framework Update the data inventory and analysis using the updated BC system Study advanced technologies in the logistics sector Study advanced business, management, and administration in the logistics sector Prepare the Logistics Development Master Plan 2040 Feasibility studies of the selected priority projects Relevant project(s) 	1) Social impacts – positive impacts, such as increased qualified staff in the logistics sector, are expected. 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected 4) Environmental Impact Assessment (EIA) – no need
● LG001, LG002, LG003, LG004	



1. Project Code	LG006	2	2. Projec	t Title	Renewa	l of a	ged vehic	les	(trucks)				
					-								
3. Implementation Agency MITRANS								4.	Implementati	on peri	od		
5. Project cost (budget) 1.0 billion CUP (40 million USD)									Start	2023	3	End	2026
6. Source of finance	е	⊠ State	e budget			\boxtimes	External f	fina	ncing agencies	5	☐ Fo	reign Investors	
7. Sector	☐ Road ☐ Railw ☐ Aviat	vay	ge ☐ Bus passenger tra ☐ Environment Institution/Regula				tion	8. Project Priority			\boxtimes	Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective ((code	<u>e)</u>	:	10. Strategy (c	ode)		11. Goal (cod	e)
1. Planning and co				-				+					
2. Transport infras		•	ent	2.1	L			- 2	2.1.1, 2.1.2			2.1.1.1	
3. Environment, sa			olonmor	.+									
Transport service Transport pricin				it.									
6. Institutional and													
o. motitational aric	тединись	y develo	princine										
12. Purpose of the	project						13. Expe	cte	d Benefits/Out	comes			
• Renewal of aged MITRANS/MINC Note: 26% of truck years old; the rem- number ?)	IN (800~1 s are less	,000 truc than 15 y	ks) ears old	; 37% a	re 16 to 30	0	The transport capacity of enterprises under MITRAS/MINCIN is enhanced						/MINCIN is
14. Project Descrip	tion						15. Socia	ıl-eı	nvironmental	conside	ration	1	
Review the data inventory of vehicles Demand analysis (the number of required trucks) Prepare a procurement plan for new trucks Procurement 16. Relevant project(s)						Social impacts – positive impacts are expected, such as stable delivery of commodities Natural Environment – no significant impacts are expected Pollution – positive impacts are expected, such as air quality improvement using new vehicles Environmental Impact Assessment (EIA) – no need							
● LG001, LG002													
17. Project location	n P	rovince:	Natio	nwide					City:				
10 Notes (if any)													
18. Notes (if any)													
Currently, thereThe Logistics Ma	•		•		•			ne L	ogistics Planni	ng and	Coord	dination Commi	ttee.

1. Project Code	LG007	2	2. Projec	t Title	DPT(Dir	ección P	rovinci	al de	Transpo	rte) enh	anceme	nt plan	
3. Implementation	Agency	MITRAN	NS					4. Im	plement	ation pe	riod		
5. Project cost (but	dget)	240 mi	llion CU	P (9.6 n	nillion USD))		S	Start	20:	22	End	2026
6. Source of finance	е	⊠ State	e budge	t		⊠ Ext	ernal fi	nanc	ing agend	cies	☐ Fo	reign Investors	
7. Sector	☐ Road, ☐ Railw ☐ Aviat	<i>r</i> ay		☐ Bus	gistics/Carg s passenger vironment titution/Re levant busir	r transpo	1	F	8. Project Priority	:		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	. Objective	(code)		10.	. Strategy	(code)		11. Goal (cod	e)
1. Planning and co				-									
2. Transport infras		•	ent	2.	.1			2.1	1.1			2.1.1.1	
Environment, sa Transport service	•	•	alonmer	\ +									
5. Transport pricin		•	•										
6. Institutional and	_												
	<u> </u>	, .											
12. Purpose of the	project					13	. Expec	ted B	Benefits/0	Dutcome	!S		
Enhance province Básica	cial transp	ort capac	city to de	eliver th	ne Canasta	•				-		acity is enhance	
14. Project Descrip	tion					15	. Social	-envi	ironment	al consid	leration		
 Update the DPT Demand forecas Prepare a truck Procurement of Upgrade the tru Driver/staff train 	st of Canas procurem the trucks ck mainte	sta Básica ent plan s	deliver			2)	delive Natur Pollut impro	ery of al Ention – oveme	commod vironmer positive ent using	dities nt – no s impacts new vel	ignificar are exp nicles	re expected, such at impacts are e ected, such as a (EIA) – no need	xpected
16. Relevant proje	ct(s)												
● LG006													
17. Project location	n P	rovince:	Natio	nwide				(City:				
	u e												
18. Notes (if any)													

					11							
1. Project Code	LG008		2. Projec	t Title		ment of stan		rd inspection	procedu	re and	a procurement	plan for
3. Implementation	Agency	MITRA	ANS				4	. Implementa	ation peri	od		
5. Project cost (bu	dget)	25 mil	lion CUP	(1.0 mil	lion USD)			Start	202	3	End	2024
6. Source of finance	e	⊠ Sta	te budge	t			fin	ancing agenc	ies	□ Fo	reign Investors	
		•										
7. Sector	⊠ Trans □ Road, □ Railw □ Aviat □ Port/	/Bridge /ay ion	J	☐ Bus ☐ Env	gistics/Carg s passenger ironment titution/Re evant busir	transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective (code)		10. Strategy	(code)		11. Goal (code	e)
1. Planning and co	ordinatior	1										
2. Transport infras			nent	2.1	L			2.1.2			2.1.2.1	
3. Environment, sa												
4. Transport service		•		nt			+					
Transport pricin Institutional and												
6. Ilistitutional and	regulatoi	y devel	эрттепт									
12. Purpose of the	project					13. Expe	ecte	ed Benefits/C	Outcomes			
To upgrade the international state	•	ehicle in	spection	procedu	ire to an	accor	din	ngly, the leve	of safety	will b	ularly inspected e maintained/in tained/improve	nproved.
14. Project Descrip	tion					15. Soci	al-e	environment	al conside	eration	1	
Study vehicle in countries Establish new ir Demand foreca: Procurement pl Inspection staff 16. Relevant proje	espection s st (the nur an for insp training p	standard mber of spection e	ls vehicles t	to be ins		incre 2) Nati 3) Polli imp	eas ura utio	sed qualified : I Environmer on – positive rement	staff for v it – no sig impacts a	ehicle nifica ire exp	re expected, sud inspections nt impacts are e pected, such as a (EIA) – no need	xpected
● LG006												
						L						
17. Project locatio	n P	rovince:	Nati	onwide			City:					
18. Notes (if any)												
L												

1. Project Code	LG009		2. Projed	ct Title	Establish plan (LG		icle	inspection co	mpanies	base	d on the vehicle	inspection
3. Implementation	Agency	MITR	ANS				4	. Implementa	tion peri	od		
5. Project cost (bu	dget)	150 m	nillion CU	P (6.0 r	nillion USD))		Start	202	4	End	2027
6. Source of finance	e	⊠ Sta	ate budge	et			fina	ancing agenci	es	☐ Fc	reign Investors	
						•			.,			
7. Sector	⊠ Trans □ Road, □ Railw □ Aviat □ Port/	/Bridge /ay ion	J	☐ Bu ☐ En	vironment stitution/Re	r transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
											_	
	Key Areas			9	. Objective	(code)		10. Strategy	(code)		11. Goal (cod	e)
1. Planning and co								2.1.2			2424	
Transport infras S. Environment, sa				2	.1			2.1.2			2.1.2.1	
4. Transport service				nt								
5. Transport pricin			•									
6. Institutional and												
				•							•	
12. Purpose of the	project					13. Exp	ecte	ed Benefits/O	utcomes			
• To establish sta	te-owned	vehicle	inspectio	n comp	anies	• The o	сара	acity for provi	ding veh	icle in	spection service	es is
To encourage the second s		hment o	of non-st	ate veh	icle	incre						
inspection com	panies					_	-	-	-		ices are provide	
14 Project Deseri	tion							nber of qualific			pection staff is in	icreased.
14. Project Descrip											are expected, su	rh as
 Vehicle inspecti vehicle inspecti 	•		establish	ned bas	ed on the			ed qualified st				JII 43
Private sector c			rovide ve	hicle in	spection				_		nt impacts are e pected, such as a	•
services.		·			•			ement	ilipacis d	ii e ex	pecieu, sucii as i	all quality
Training of insp	ection staf	f				4) Env	iron	nmental Impa	ct Assess	ment	(EIA) – no need	
16. Relevant proje	ct(s)											
• LG008												
17. Project locatio	n P	rovince	: Nati	onwide	!			City:				
18. Notes (if any)												

	1											
1. Project Code	LG010	2. P	Project T	itle	General	warehouse re	eha	bilitation/rene	wal pla	an		
3. Implementation	Agency	MINCIN a	and prov	inces			4	. Implementat	ion per	iod		
5. Project cost (bu	dget)	100 millio	on CUP ((4.0 m	nillion USD))		Start	202	23	End	2024
6. Source of finance	e	State I	budget				fina	ancing agencie	!S	☐ Fo	reign Investors	
		I.										
7. Sector	☐ Road/☐ Railwa	ay	_	□ Bus □ Envi Inst	istics/Cargo passenger ronment itution/Reg evant busir	transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective ((code)	4	10. Strategy (code)		11. Goal (cod	e)
1. Planning and co							_					
2. Transport infras			t	2.2	2			2.2.1, 2.2.2			2.2.1.1~2	
3. Environment, sa	•	•					-					
4. Transport service		•	•				+					
Transport pricin Institutional and												
o. mstitutional and	regulator	y developin	ient									
12. Purpose of the	project					13. Expe	ecte	ed Benefits/Ou	tcome	S		
To make a reha MINCIN	bilitation/r	enewal plar	n of war	ehous	ses under		_	capacity and q	-	-	roved gement will be	orepared
14. Project Descrip	otion							environmental		_		,
Collection of the and provinces) Evaluation of the Storage demand Warehouse reh Preliminary des equipment such Cost estimate 16. Relevant proje LG009	e inventory e existing of d forecast abilitation/ ign of the r	condition of renewal pr ehabilitatio	f the ware ogram	rehou wal, in	uses	incre 2) Natu 3) Polli and	eas ural utic sol	ed qualified wa I Environment on – negative in id waste	arehou – no si mpacts	ise staff gnificar are exp	re expected, sure that impacts are e pected, such as (EIA) – needed	xpected
17. Project locatio	n Pr	ovince:	Nation	wide				City:				
,				-				,				
18. Notes (if any)												

1. Project Code	LG011	2	2. Projed	t Title	Rehabili	tation/renev	/al	of the genera	l wareho	use of	each province	
3. Implementation	Agency	MINCI	N and pi	ovince	es		4	4. Implementa	ation per	iod		
5. Project cost (bu	dget)	4.0 billi	ion CUP	(160 ו	million USD)			Start	202	23	End	2024
6. Source of finance	:e	Stat	e budge	et			l fir	nancing agenc	ies	☐ Fo	reign Investors	
7. Sector	☐ Road, ☐ Railw ☐ Aviat	ay		□ B □ Er Ir	ogistics/Cargus passenge nvironment nstitution/Re elevant busi	r transport	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			g	Objective	(code)		10. Strategy	(code)		11. Goal (cod	le)
1. Planning and co												
2. Transport infras			ent	2	2.2			2.2.1, 2.2.2			2.2.1.1~2	
3. Environment, sa	•	•										
4. Transport service				nt								
5. Transport pricin												
6. Institutional and	regulator	y develo	pment									
12. Purpose of the	project					13. Exp	ect	ted Benefits/C	Outcome	S		
To implement ti	he rehabili	tation/re	newal r	olan of	warehouse	s • Stor	age	capacity and	guality a	are imp	proved	
under MINCIN		,					_			-	gement will be	prepared
14. Project Descrip	otion							environment	•		_	' '
Based on the ware	house reh	abilitatio	n/renev	val pla	ın (LG010),	1) So	ial	impacts – po	sitive im	pacts a	re expected, su	ch as
Detailed design as refrigerationConstruction an	and freeze	ers		ng equ	uipment suc	2) Na 3) Po	tura Iuti		ıt – no si	gnifica	f nt impacts are e pected, such as	•
 Environmental I 	mpact Ass	essment	(EIA)			4) En	/iro	nmental Impa	act Asses	sment	(EIA) – needed	
Traffic Impact A	ssessment	(TIA)										
• Cost estimate												
Tender and Con	struction	supervisio	on									
16. Relevant proje	ct(s)											
• LG010												
17. Project locatio	n P	rovince:	Nati	onwid	e			City:				
18. Notes (if any)												
• The cost will be	estimated	based o	n the de	tailed	design.							

1. Project Code	LG012		2. Projec	ct Tit	rie i	on the need			cific im	portan	t goods in Marie	l, Matanzas,
		II.				•						
3. Implementation	Agency	Minis	try of Eco	non	ny and Industry			4. Implementa	tion pe	riod		
5. Project cost (bu	dget)	25 mi	illion CUP	(1 n	nillion USD)			Start	202	25	End	2026
6. Source of finance	e	⊠ Sta	ate budge	t		⊠ Externa	l fi	nancing agenci	es	☐ Fo	reign Investors	
		•			•							
	⊠ Trans	sport Pl	anning	\boxtimes	Logistics/Cargo	0					Immediate	
	☐ Road	_	!		Bus passenger	transport					(2022 – 2023)	
7. Sector	☐ Railw ☐ Aviat	•			Environment Institution/Reg	gulation		8. Project Priority			Short-term (2024 – 2026)	
	☐ Port/		me		Relevant busir	_	ers	•			Medium-term	
					nererane suon						(2027 – 2030)	
	Key Areas	•			9. Objective (code)		10. Strategy (code)		11. Goal (cod	e)
1. Planning and co	ordinatior	1										
2. Transport infras					2.2			2.2.1, 2.2.2			2.2.1.1~2	
3. Environment, sa	-											
4. Transport service 5. Transport pricin				ΠL								
6. Institutional and												
		•									•	
12. Purpose of the	project					13. Exp	ec	ted Benefits/O	utcome	S		
• Study the need Mariel, Matanza		- .		_				and import act				
14. Project Descrip		-8,						nation betweer -environmenta			usiness entities	
Based on the expo		orting a	nd indust	rial	development						re expected, su	ch as an
strategies, special	storage fa					inc	rea	se in qualified	plannin	g staff		
provinces will be s						2) Do				_	nt impacts are e pected, such as	•
 Planning coordi sectors 	nation wit	h MEP/	MINCIN a	and o	other industrial	and	d sc	olid waste	-		•	
Demand forecase	st of expo	rt and ir	mport of s	spec	ific commoditie		/II C	minentai iinpa	LI ASSES	silielit	(EIA) – IEE will b	e needed
 A plan for buildi commodities 	ng storage	e faciliti	ies/equipi	men	t for particular							
Initial Environm	ental Eval	uation ((IEE)									
16. Relevant proje	ct(s)											
• LG010												
17. Project location	n P	rovince	e: Nati	onw	ride			City:				
18. Notes (if any)												
1												

	1											
1. Project Code	LG013		2. Projec	t Title	Construc	tion of pri	ority	new wareh	ouses			
3. Implementation	Agency	Conce	erned Min	stries				4. Impleme	ntation pe	riod		
5. Project cost (bu	dget)	4.0 bi	llion CUP (160 m	illion USD)			Start	20:	27	End	2030
6. Source of finance	e	⊠ Sta	ate budget			⊠ Exteri	nal fii	nancing age	ncies	⊠ Fo	oreign Investors	
		I										
7. Sector	⊠ Tran: □ Road □ Railv □ Aviat □ Port/	/Bridge vay tion		☐ Bu☐ Env	gistics/Carg s passenger vironment titution/Re levant busir	transport gulation		8. Proje Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9.	Objective (code)		10. Strate	gy (code)		11. Goal (cod	le)
1. Planning and co									<u> </u>		,	,
2. Transport infras	tructure d	levelopi	ment	2.:	2			2.2.1, 2.2.	2		2.2.1.1~2	
3. Environment, sa	fety, and	security	/									
4. Transport service	e and ind	ustry de	evelopmer	ıt								
5. Transport pricin	g and reso	ource al	location									
6. Institutional and	d regulato	ry devel	lopment									
_												
12. Purpose of the	project					13. E	kpect	ted Benefits	s/Outcome	es		
 Construction of installation of e 	•		ge buildin	gs with	the		_	capacity a dation for si		•	oroved agement will be	prepared
14. Project Descrip	otion					15. S	ocial-	-environme	ntal consid	deratio	n	
Based on the stud- goods in Mariel, M (LG012), • Feasibility study	latanzas, (Cienfue	gos, and S	antiago	de Cuba	ir 2) N 3) P	icrea atura olluti	sed qualifie al Environm ion – negati	d warehoi ent – no s	ise stal	are expected, su ff nt impacts are e opected, such as	expected
 Detailed design such as refrigera 				luding	equipment	II.		olid waste onmental Im	pact Asse	ssment	(EIA) – needed	
Construction an	d procure	ment p	lan									
Environmental I	mpact As	sessmer	nt (EIA)									
Traffic Impact A	ssessmen	t (TIA)										
• Cost estimate												
Tender and Con	struction	supervi	sion									
16. Relevant proje	ct(s)											
● LG010												
17. Project locatio	n P	rovince	2:					City:				
18. Notes (if any)												
• The costs are es	stimated b	ased or	n the deta	led des	sign.							
<u> </u>												

1. Project Code	LG014	2	. Projec	t Title	Study or	packaging t	ech	nnology and inc	lustry d	levelop	ment	
3. Implementation	Agency	MINCIN	N				4	4. Implementat	ion per	iod		
5. Project cost (bu	dget)	25 milli	ion CUP	(1 milli	on USD)			Start	202	22	End	2024
6. Source of finance	e	⊠ Stat	e budge	t			l fir	nancing agencie	es	☐ Fo	reign Investors	
						<u>l</u>						
7. Sector	☐ Road/☐ Railw☐ Aviati	ay	nning	☐ Bus	gistics/Carg s passenge vironment titution/Re	r transport		8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026)	
	☐ Port/	Maritime	:	Rel	evant busi	ness and oth	ers				Medium-term (2027 – 2030)	
											(2027 2000)	
	16				Objective A			40.51	! - \		44 Cool (cool	1-1
1. Planning and co	Key Areas			9.	Objective (code)		10. Strategy (code)		11. Goal (cod	e)
2. Transport infras			ent	2.2	2			2.2.3			2.2.3.1	
3. Environment, sa		•						-				
4. Transport service	e and indu	stry deve	elopmen	t								
5. Transport pricin	g and reso	urce allo	cation									
6. Institutional and	d regulator	y develor	oment									
12. Purpose of the	project					13. Exp	ect	ed Benefits/Ou	ıtcome	S		
Study modern p	ackaging t	echnolog	gies					ount of export	•			
 Encourage the of technologies 	companies	to use th	ie new p	ackagir	ng	• Dam	age	ed goods (ratio) durinį	g transp	oortation will be	e decreased
14. Project Descrip	otion					15. Soc	ial-	environmental	consid	eration	1	
New packaging ted products and incre	_	-			-	inc	rea	se in the delive	ry of hi	gh-qua	re expected, su lity/fresh goods	S
 Study packaging 		_				, ·				_	nt impacts are e re expected. Ho	•
Study the need		_	-			use	of	plastic should	be care	fully co	nsidered	•
 Prepare a progr installing new p 				compa	inies in	4) Env	/iro	nmental Impac	t Asses	sment	(EIA) – no need	
16. Relevant proje	ct(s)											
•												
17. Project locatio	n Pi	rovince:	Natio	nwide				City:				
18. Notes (if any)												
• The cost of insta	alling new	packaginį	g techno	logies	shall be stu	idied separa	ely	for each comp	any.			

3. Implementation Agency MINCIN/MITRANS 4. Implementation period 5. Project cost (budget) 37.5 million CUP (1.5 million USD) Start 2022 End 2024 6. Source of finance State budget State budget State budget Proreign Investors	1. Project Code	LG015		2. Projec	t Title	Busir	ness C	ontinuity Pl	an i	n the logist	ics sector	,		
5. Project cost (budget) 3.7. Smillion CUP (1.5 million USD) 5. Source of finance State budget State budge	. ,			-,										
5. Project cost (budget) 3.7. Smillion CUP (1.5 million USD) 5. Source of finance State budget State budge	3. Implementation	Agency	MINC	IN/MITRA	ANS				4.	Implement	ation per	iod		
6. Source of finance				-		million I	ISD)			-			Fnd	2024
7. Sector Gallway Environment Institution/Regulation Relevant business and others					•		÷	✓ Evtornal	fina					
7. Sector Road/Bridge Rallway Bus passenger transport B. Project Rovironment Institution/Regulation Relevant business and others Relevant business and linear	o. Source of finance	C		ate buuge				Z External	IIIIa	incing agen	LIES		neigh investors	
7. Sector Gallway Gal														
Railway Aviation Institution/Regulation Relevant business and others Railway Aviation Port/Maritime Relevant business and others Relevant business and logistics bector in other countries Relevant project(s) Relevant business and others Relevant business Relevant business Relevant business Relevant business and others Relevant business Relevant business Relevant business Relevant business Relevant business Relevant busin				_		-	-	ransnort						
Aviation Port/Maritime Institution/Regulation Relevant business and others Priority Decided		1	_			•	-	ransport		8. Project	t	\boxtimes	. ,	
Revareas 9. Objective (code) 10. Strategy (code) 11. Goal (code)	7. Sector	☐ Aviat	ion							Priority				
Rey Areas 9. Objective (code) 10. Strategy (code) 11. Goal (code)		☐ Port/	'Maritir	ne	R	elevant b	ousine	ss and othe	rs					
1. Planning and coordination 2. Transport infrastructure development 3. Environment, safety, and security 3. 1, 3, 2 3. 1, 1, 3, 2, 2 3. 1, 1, 1, 3, 2, 2 4. Transport mem, continuity plan (pCP) to be prepare dro prepint of prepints secured of disasters and infection disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the logistics secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disaster													(2027 2030)	
1. Planning and coordination 2. Transport infrastructure development 3. Environment, safety, and security 3. 1, 3, 2 3. 1, 1, 3, 2, 2 3. 1, 1, 1, 3, 2, 2 4. Transport mem, continuity plan (pCP) to be prepare dro prepint of prepints secured of disasters and infection disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the logistics secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disasters are maintained entering of the people is secured in the event of disaster														
2. Transport infrastructure development 3. Environment, safety, and security 3. 1, 3.2 3. 1.1, 3.2.2 4. Transport service and industry development 12. Purpose of the project						9. Object	ive (c	ode)		10. Strategy	y (code)		11. Goal (cod	de)
3. Environment, safety, and security 3. 1, 3. 2 3. 1. 1, 3. 2 3. 1. 1, 3. 2. 2 3. 1. 1, 3. 2. 2 3. 1. 1. 1, 3. 2. 2 4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes 14. Project Description 15. Social-environmental consideration 16. Institutional and regulatory development 17. Project Description 18. Expected Benefits/Outcomes 18. Expected Benefits/Outcomes 19. Logistics services in the event of disasters are maintained The life of the people is secured 19. Social-environmental consideration 10. Social impacts – positive impacts are expected in the event of disasters and infection diseases 10. Social impacts – positive impacts are expected in the event of disasters and infection diseases 21. Purpose of the project 22. Purpose of the project 23. Expected Benefits/Outcomes 24. Logistics services in the event of disasters are maintained The logistics sector is a system of the people is secured 25. Social-environmental consideration 26. Social-environmental consideration 27. Social impacts – positive impacts are expected in the event of disasters and infection diseases 28. Natural Environment – no significant impacts are expected. 29. Pollution – no significant impacts are expected. 29. Environmental Impact Assessment (EIA) – no need 20. Environmental Impact Assessment (EIA) – no need 21. Project Description 22. Purpose of the project of the event of severe inflectional diseases (pandemic)														
4. Transport service and industry development 5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project • Develop/update a business continuity plan (PCP) to be prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)									-					
5. Transport pricing and resource allocation 6. Institutional and regulatory development 12. Purpose of the project 13. Expected Benefits/Outcomes • Develop/update a business continuity plan (PCP) to be prepared for potential risks caused by natural disasters and infection diseases 14. Project Description 15. Social-environmental consideration A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)						3.1, 3.2			+	3.1.1, 3.2.2			3.1.1.1, 3.2.2	2.1
12. Purpose of the project Develop/update a business continuity plan (PCP) to be prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 13. Expected Benefits/Outcomes Logistics services in the event of disasters are maintained The life of the people is secured Natural Environmental consideration 13. Social-environmental consideration 14. Social impacts — positive impacts are expected in the event of disasters and infection diseases 2 Natural Environment — no significant impacts are expected. Environmental Impact Assessment (EIA) — no need Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic)					nt									
12. Purpose of the project Develop/update a business continuity plan (PCP) to be prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 13. Expected Benefits/Outcomes Logistics services in the event of disasters are maintained The life of the people is secured 15. Social-environmental consideration 1 Social impacts — positive impacts are expected in the event of disasters and infection diseases 2) Natural Environment — no significant impacts are expected. 4) Environmental Impact Assessment (EIA) — no need Environmental Impact Assessment (EIA) — no need 16. Relevant project(s)														
 Develop/update a business continuity plan (PCP) to be prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s) 	o. mstitutional and	regulatoi	y deve	юринени	_									
prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 15. Social impacts – positive impacts are expected in the event of disasters and infection diseases 2) Natural Environment – no significant impacts are expected. 4) Environmental Impact Assessment (EIA) – no need • Environmental Impact Assessment (EIA) – no need	12. Purpose of the	project						13. Ехре	ecte	d Benefits/0	Outcome	S		
prepared for potential risks caused by natural disasters and infection diseases 14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 15. Social impacts – positive impacts are expected in the event of disasters and infection diseases 2) Natural Environment – no significant impacts are expected. 4) Environmental Impact Assessment (EIA) – no need • Environmental Impact Assessment (EIA) – no need	Develop/update	a busines	ss conti	nuity plar	(PCP)	to be		• Logis	tics s	services in t	he event	of disa	asters are main	tained
14. Project Description A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 15. Social impacts — positive impacts are expected in the event of disasters and infection diseases 2 Natural Environment — no significant impacts are expected. 3 Pollution — no significant impacts are expected. 4 Environmental Impact Assessment (EIA) — no need	prepared for po	tential risl					nd	_						
A business continuity plan (BCP) in the logistics sector is a system of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 10. Relevant project(s)								1E Soci	al or	nuironmont	al concid	oration		
of prevention and recovery from potential threats to the state. The plan ensures that alternative transport means/routes and logistics personnel are protected and can function quickly in the event of a disaster. • Study logistics BCPs in other countries • Study the health/hygienic measures for the staff in the logistics sector in other countries • Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake • Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)			(CD) in t	the logisti	cs soc	or is a sy	ıstam							the event of
logistics personnel are protected and can function quickly in the event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)				_							-		ire expected iii	the event of
event of a disaster. Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)	-			-							-	-	-	expected
 Study logistics BCPs in other countries Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s) 		•	cted ar	id can fun	ction	quickly in	the			_			•	
 Study the health/hygienic measures for the staff in the logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s) 			er cour	ntries				,					, ,	
 logistics sector in other countries Prepare a BCP in the event of severe natural disasters, such as hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s) 					e staff	in the								
hurricanes and earthquake Prepare a BCP in the event of severe inflectional diseases (pandemic) 16. Relevant project(s)	•													
(pandemic) 16. Relevant project(s)				ere natur	al disa	sters, su	ch as							
16. Relevant project(s)		the even	t of sev	ere inflec	tional	diseases								
•		ct(s)												
	•													
								1						
17. Project location Province: Nationwide City:	17. Project location	n P	rovince	e: Nati	onwid	e				City:				
18. Notes (if any)	18. Notes (if any)													
• The preparation of the national-level BCP is urgently needed.	The preparation	of the na	tional-l	evel BCP i	s urge	ntly need	ded.							

	1	-											
1. Project Code	LG016		2. Projec	t Title	e Disaster/	/Roac	d Acciden	t inf	ormation s	sharing sy	stem o	development	
3. Implementation	Agency	MITR	ANS and I	Nation	nal Revolution	nary F	Police	4. I	mplement	ation per	iod		
5. Project cost (but	dget)	37.5	million CU	P (1.5	million USD))			Start	202	4	End	2025
6. Source of finance	e	⊠ St	ate budge	t		× I	External f	inar	ncing agen	cies	☐ Fo	reign Investors	
7. Sector	⊠ Tran □ Road □ Railv □ Aviat □ Port,	/Bridge vay tion		E	ogistics/Carg Bus passenger Invironment Institution/Re Relevant busir	r tran egulat	ion	rs	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
												_	
	Key Areas	5			9. Objective ((code)	1	0. Strategy	(code)		11. Goal (cod	e)
1. Planning and co	ordinatio	1											
2. Transport infras	tructure c	levelop	ment										
3. Environment, sa	fety, and	securit	/		3.2			3.	.2.1			3.2.1.1	
4. Transport servic	e and ind	ustry de	evelopme	nt									
5. Transport pricing	g and reso	ource a	location										
6. Institutional and	l regulato	ry deve	lopment										
12. Purpose of the	project						13. Exped	cted	Benefits/0	Outcomes	5		
 Develop/update prepared for po infection disease 	tential ris								ural disaste the logistic	-		ents event of disast	ers
14. Project Descrip	tion						15. Socia	l-en	vironment	al conside	eration)	
route and n Similarly, a road ac - Prior inform higher risks	p transpo nation: su rmation: tatus of th neans cident inf nation: we), congest rmation: routes, et accident in	rt servion ch as no damage ne trans formati eather, cion, etc acciden cc.	ee provide earing hur ed transpo port servi on sharing black spot t status, c	ricane ort inf ices, a g system (local ilosed ms in	d users, e, rastructure, and alternativ em provides: ations of road section, other	re	disas comn 2) Natur 3) Pollu	ters nun ral E tion	, such as m ities nvironmei – no signi	naintainin nt – no sig ficant imp	g comi gnificar pacts a	re expected in t modity supply to nt impacts are e re expected. (EIA) – no need	o the expected
47.0									0				
17. Project location	n F	Province	e: Nati	onwi	ae				City:				
18. Notes (if any)													
• The installation	of the inf	ormatic	n-charing	cycto	m will follow	thic	study (LG	017	1				
- THE HISTAHATION	or the lill	omatic	ni-siidiiilg	sysie	ana wiii lulluw	u115 5	study (LG	01/	J·				

1. Project Code	LG017	2. Proj	ect Title	Installatio	n of Disaste	r/Ro	ad Accident	informat	tion sh	aring system at	Michi-no-Eki
3. Implementation	Agency	MITRANS a	and Natior	al Revolutio	nary Police	4	. Implementa	ation pe	riod		
5. Project cost (but	dget)	120 million	CUP (4.8	million USD)			Start	202	26	End	2028
6. Source of finance	е	⊠ State bu	udget		⊠ Externa	l fin	ancing ageno	ies	□ Fo	oreign Investors	
7. Sector	☐ Road ☐ Railw ☐ Aviat	<i>r</i> ay	□ B □ E	ogistics/Carg us passenger nvironment nstitution/Re elevant busir	r transport gulation	ers	8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas		g	Objective (code)		10. Strategy	(code)		11. Goal (cod	le)
1. Planning and co						-					
Transport infras S. Environment, sa		•		3.1		-	3.1.1			3.1.1.1	
4. Transport service	•). <u>1</u>			3.1.1			3.1.1.1	
5. Transport pricing											
6. Institutional and	l regulato	y developme	ent								
12. Purpose of the	project				13. Ex	ecte	ed Benefits/C	Outcome	S		
 Install the disast at Michi-no-Eki 	-			· .			atural disaste	•		ents e event of disast	ers
14. Project Descrip	ition						environment				
A disaster/road accinstalled at Michi-r			iring syste	m shall be	dis	aste	rs, such as m			are expected in t modity supply t	
16. Relevant project	ct(s)						ınities I Environmer	nt – no si	gnifica	nt impacts are e	expected
● RB008				3) Po	lutic	on – no signif	icant im	pacts a	•	•	
17. Project location	n P	rovince:	Nationwid	е			City:				
18. Notes (if any)											
•											

1. Project Code	LG0:	18 2.	Project	Title		the hazard ansportatio	_	goods trans	port need	s and d	lesignation of d	angerous
					, -	•						
3. Implementation	Agency	MITRAN	S and Na	tional	Revolution	nary Police	4	. Implemen	tation per	iod		
5. Project cost (but	dget)	37.5 mill	ion CUP	(1.5 m	illion USD)			Start	202	.3	End	2025
6. Source of finance	e	State	budget			⊠ Externa	l fin	ancing ager	ncies	☐ Fo	reign Investors	
	⊠ Tran	sport Planı	ning	⊠ Log	istics/Carg	0					Immediate	
	☐ Road ☐ Railv	. •			passenger ironment	transport		8. Projec			(2022 – 2023) Short-term	
7. Sector	☐ Aviat	,			itution/Re	gulation		Priority	. L		(2024 – 2026)	
	☐ Port/	/Maritime		Rel	evant busir	ness and oth	ers				Medium-term	
											(2027 – 2030)	
							1					
	Key Areas			9. (Objective (code)		10. Strateg	y (code)		11. Goal (cod	le)
Planning and coo Transport infras			nt				-				1	
3. Environment, sa		•	111	3.3	<u> </u>			3.3.1, 3.3.2			3.3.1.1, 3.3.2	.1
4. Transport servic	•	•	lopment									
5. Transport pricing		•										
6. Institutional and	l regulato	ry develop	ment									
12. Purpose of the						13. Ex	ecte	ed Benefits/	Outcome:	S		
 To prepare a pla transport of dar 	-		onitor a	nd mar	nage the			l risks in tra educe dama			=	
14. Project Descrip	tion					15. So	ial-e	environmen	tal consid	eration	1	
Transport of hazar be carefully monitor											re expected in t modity supply t	
environmental and		_						inities	ilailitailiii	ig comi	mounty supply t	o trie
other materials an	_					-				-	nt impacts are ϵ re expected.	expected
 Study other cou transport of dar 	•		onitor a	nd ma	nage the			_			(EIA) – no need	
Demand forecase			ds transp	ortatio	on							
Inventory data of	_	_	-									
Route identifica	tion for tr	ansporting	g danger	ous go	ods							
 Feasibility study monitoring system 		stallation (of the ha	zardoı	us goods							
 Regulatory fram dangerous good 		manage th	ne transp	ortati	on of							
16. Relevant projec	ct(s)											
•												
						•						
17. Project location	n P	rovince:	Nation	wide				City:				
18. Notes (if any)												
The installation	of the mo	nitoring sy	/stem wi	ll follo	w this stud	y (LG019).						

1. Project Code	LG0:	19	2. Projec	t Title	Installati	ion of a hazar	do	us goods veh	icle mon	itoring	system		
3. Implementation	Agency	MITRA	ANS and I	Nation	al Revolution	nary Police	4	I. Implement	ation pe	riod			
5. Project cost (bu	dget)	37.5 n	nillion CU	P (1.5	million USD))		Start	202	26	End	2028	
6. Source of finance	ce	⊠ Sta	ite budge	t			fin	ancing agen	cies	☐ Fo	reign Investors		
7. Sector	☐ Road ☐ Railv ☐ Aviat	•	J	□ B □ Ei Ir	ogistics/Carg us passenger nvironment nstitution/Re elevant busir	r transport	ers	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Area	s			9. Objective	(code)	ode) 10. Strategy (code)					le)	
1. Planning and co	•				,	()				, , , , , ,	-,		
2. Transport infras	tructure c	levelopr	ment										
3. Environment, sa	fety, and		3.3			3.3.1, 3.3.2			3.3.1.1, 3.3.2	.1			
4. Transport service	e and ind	ustry de	nt										
5. Transport pricin	g and reso	ource all	location										
6. Institutional and	d regulato	ry devel	opment										
									_				
12. Purpose of the	project					13. Exp	ect	ed Benefits/	Outcome	S			
 To install a system dangerous good 		nitor and	d manage	the tr	ansport of		 Reduced risks in transporting hazardous goods Avoid/reduce damages caused by accident 						
								educe damag environment	-				
14. Project Description Based on the study		a systei	m to mor	itor a	nd manage						re expected in t	he event of	
the transport of da					ia manage					•	modity supply to		
Detailed design	of the sys	tem						unities					
 Cost estimates 								on – no signi		_	nt impacts are e re expected.	xpected	
 Preparation of t 	ender do	cuments	5					•			(EIA) – no need		
 Installation of the 	he system												
16. Relevant proje	ct(s)												
● LG018													
	·												
17. Project locatio	e			City:									
18. Notes (if any)													
•													
·	·		·	_	<u> </u>	<u></u>		·		_			

1. Project Code	LG02	20	2. Projec	Title	Study on	the state-v	vide	emergency,	/ambulan	ce tran	sport needs			
3. Implementation	Agency	Minis	try of Pub	lic Hea	Ith and MITI	RANS	4	1. Implemen	tation per	riod				
5. Project cost (bu	dget)	37.5 ו	million CU	P (1.5 r	nillion USD)			Start	202	24	End	2025		
6. Source of finance	e .		ate budge	-	Ī		al fir	nancing ager	ncies	□ Fo	reign Investors			
7. Sector	□ Trans □ Road, □ Railw □ Aviat □ Port/	/Bridge /ay ion		☐ Bu☐ Env	gistics/Cargo s passenger vironment titution/Reg levant busin	transport gulation	hers	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)			
1 Diamina and an	Key Areas			9.	Objective (code)	de) 10. Strategy (code) 11. Goal (code)							
Planning and co Transport infras			mont											
3. Environment, sa		•		3.	4		3.4.1 3.4.1.1, 3.4.1.2							
4. Transport service								,, ,, <u>,</u>			3. 1.1.1, 3. 1.1.	<u>-</u>		
	5. Transport pricing and resource allocation													
6. Institutional and														
12. Purpose of the	project					13. Ex	pect	ed Benefits/	'Outcome	s				
• Study the need	for emerg	ency m	edical trar	sport i	n the state	● Life	of t	he people is	saved					
 Establish a plan transport syster 		e the ex	xisting em	ergenc	y medical									
14. Project Descrip	otion					15. Sc	15. Social-environmental consideration							
Emergency medica provide world-clas event of a serious, regard, a compreh shall be carried ou	s medical potentiall ensive stu t.	care for y life-th dy of th	r people ir nreatening ne needs f	the ur incide or such	nfortunate nt. In this services	2) Na 3) Po 4) Er	 Social impacts – positive impacts are expected: life-saving, etc Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected. Environmental Impact Assessment (EIA) – no need 							
 Inventory data of level of medical aircraft, and ves 	services,					,								
 Gap analysis (er capacity/speed) 		transpo	rt needs a	nd the	transport									
medical transpo	 Preparation of a plan to strengthen the nationwide emergen medical transport services, including a study on the establishment of ambulance service companies (with 													
16. Relevant proje														
•														
17. Project location	n P	rovince	: Natio	nwide				City:						
		213.100						,-	L					
18. Notes (if any)														
•														

1. Project Code	LG02	1	2. Proje	ct Title	Upgrade	d emerge	ency r	med	dical transp	ort servi	ce unit	(company)		
3. Implementation	Agency	Minis	stry of Pu	blic He	ealth and MIT	RANS		4.	Implement	ation pe	riod			
5. Project cost (but	dget)	5.0 b	illion CUF	(200	million USD)				Start	202	24	End	2025	
6. Source of finance	е	⊠ St	ate budge	et		⊠ Exte	rnal f	fina	ncing agen	cies	□ F	oreign Investors		
7. Sector	☐ Aviation Institution/R ☐ Port/Maritime Relevant bus							rs	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Kev Areas				9 Ohiective	jective (code) 10. Strategy (code) 11. Go					11. Goal (cod	le)		
1. Planning and co					3. 0.3,000.10	(0000)			20.00.000	, (couc)		22. 000. (000	,	
2. Transport infras														
3. Environment, sa	3. Environment, safety, and security 3.4								3.4.1 3.4.1.1, 3.4					
4. Transport service	e and indu	istry de	velopme	nt										
5. Transport pricin	g and reso	urce al	location											
6. Institutional and	l regulator	y devel	opment											
									15 6: 1					
12. Purpose of the	project					13.	Expe	cte	d Benefits/0	Outcome	S			
 Establish/upgra- provision unit (c 		ergency	y medical	trans	oort service	● Li	• Life of the people is saved							
14. Project Descrip	tion					15.	Socia	ıl-er	nvironment	al consid	eratio	n		
14. Project Description Based on the study (LG020), a unit (or a state-owned company) to provide emergency medical transport services will be established. • Procurement of transport means • Medical transport staff training (drivers, pilots) 16. Relevant project(s) • LG015, LG016, LG017, LG020,							Natu Pollu	ral tior	Environme n – no signi	nt – no si ficant im	gnifica pacts a	are expected: life int impacts are e are expected. : (EIA) – no need	xpected	
■ £G015, £G016, £														
47.5					611									
17. Project location	e				City:									
18. Notes (if any)														
To. Notes (II ally)														
•														

1. Project Code	Code LG022 2. Project Title R&D on zero-carbon technologies in the logistics sector (CIMAB)													
1. Froject code	LGUZ	-2	Z. FTOJEC	JU IIII	e Kab oi	1 2010-0	carbon to	CCII	nologies in	tile logist	.103 300	tor (CIIVIAB)		
3. Implementation			B, MITRA					4.	Implement	1				
5. Project cost (bu	dget)	5.0 bi	llion CUP	(200	million USD))			Start	202	:3	End	2030	
6. Source of finance	е	⊠ Sta	ate budge	et .		⊠ E	External	fina	ancing agen	cies	☐ Fo	reign Investors		
	⊠ Trans		_		ogistics/Car	-						Immediate		
	☐ Road, ☐ Railw	_			Bus passenge Invironment		sport		8. Project		(2022 – 2023) ⊠ Short-term			
7. Sector	☐ Aviat	,			nstitution/R		ion		Priority			(2024 – 2026)		
	☐ Port/	'Maritin	ne		Relevant bus	siness a	and othe	rs				Medium-term		
												(2027 – 2030)		
												_		
	Key Areas	i			9. Objective	e (code	ode) 10. Strategy (code) 11. Goal (code)					le)		
1. Planning and co	ordination	1												
2. Transport infras														
	3. Environment, safety, and security 3.5 4. Transport service and industry development								3.5.1			3.5.1.1		
Transport pricin Institutional and	_							+						
o. mstitutional and	regulator	y uevei	оринени											
12. Purpose of the	project						13. Expected Benefits/Outcomes							
Continuous Resortante Carbon emission			pment (R	&D) t	o achieve Ze	ero	● Zero carbon emissions will be achieved by 2050							
14. Project Descrip	•						15. Social-environmental consideration							
A scaling up of final is essential to achinaddition, the capacetc.) needs to be in international research.	eve zero c city (huma ncreased.	arbon e in resou Besides	emissions irces, labo , research	by 20 orato n colla	150. In ry instrumer	nts, ith	1) Social impacts – positive impacts are expected, such as increased qualified staff/scientists, etc. 2) Natural Environment – no significant impacts are expected 3) Pollution – no significant impacts are expected. 4) Environmental Impact Assessment (EIA) – no need							
Increase in hum	_		-				,					` '		
 Collaboration w organizations/u 			research											
 Procurement of 			ments, et	tc.										
Continuous R&E) activities	· 5												
16. Relevant proje	ct(s)													
•														
17. Project location	n P	rovince	: Nati	onwi	de				City:					
18. Notes (if any)	18. Notes (if any)													
•														

	1				1									
1. Project Code	LG02	3 2.1	Project [*]	Title	3PL logis	tics serv	ice pr	ovide	er develo	oment p	lan (stu	dy)		
3. Implementation	Agency	MITRAN ministrie		CIN, an	d other re	levant		4. Ir	mplement	tation p	eriod			
5. Project cost (bu	dget)	25 millio	on CUP (1 milli	on USD)				Start	20	023	End	2024	
6. Source of finance	e	State	budget			⊠ Exte	ernal f	finan	cing agen	cies	□ Fo	reign Investors		
						I								
7. Sector	□ Road/ □ Railwa □ Aviati	ay		☐ Bus ☐ Envi Inst	istics/Carg passenge ironment itution/Re evant busi	r transpo gulation	1	rs	8. Projec Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas			9. (Objective (code)		10.	Strategy ((code)		11. Goal (code	2)	
1. Planning and co	ordination													
2. Transport infras	tructure de	evelopmen	nt											
3. Environment, sa	•													
4. Transport service						4.1.1				4.1.1.1, 4.1.1.	2, 4.1.1.3			
5. Transport pricin				5.2	!		5.2.1 5.2.1.1							
6. Institutional and	regulator	y developn	nent											
12. Purpose of the	project					13.	. Expe	cted	Benefits/	Outcom	es			
• Study the estab provider	lishment o	f third-part	ty logist	ics (3P	L) service	•	The ef	fficie	ncy of log	istics se	rvices			
14. Project Descrip	otion					15.	15. Social-environmental consideration							
Study the establish providers by integ GEMAR, UFC, and management, war • Study internatio • Study capacity/UFC, and CACSA	rating the s CACSA. The ehousing, a onal benchi capability c	services of e services i and transp mark (3PL s	empres include a ortation services	sas un goods n. provid	der GEA. inventory ders)	2)	incre Natu Pollu	ased ral E tion	qualified nvironme – no signi	staff, e nt – no ficant ir	tc. significa npacts a	re expected, suc nt impacts are e re expected. (EIA) – no need	xpected	
• Plan of a 3PL co	mpany													
 Feasibility study forecast, new process 			, includi	ng den	nand									
16. Relevant proje														
• LG001, LG002, L														
17. Project locatio	n Pr	rovince:	Nation	nwide					City:					
18. Notes (if any)														
•														
L														

1. Project Code	LG024 2. Project Title Establishment of a 3F empressas under GEA								-	-	-	g transport serv	ices of
		ı											
3. Implementation	Agency	MITRAI	NS					4. Ir	mplement	ation per	iod		
5. Project cost (bu	dget)	250 mil	llion CUI	(10 mi	llion USD)				Start	202	5	End	2026
6. Source of finance	e	⊠ Stat	e budge	t		⊠ Extern	al f	inan	cing agen	cies	☐ Fo	reign Investors	
7. Sector	☐ Road, ☐ Railw ☐ Aviat	ay .		☐ Bus☐ Env	gistics/Cargo passenger ironment titution/Reg evant busin	transport gulation	her	rs	8. Project Priority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)	
	Key Areas			9. (Objective (d	code)		10). Strategy	(code)		11. Goal (code	e)
1. Planning and co	ordinatior	1											
2. Transport infras	tructure d	evelopm	ent										
3. Environment, sa	fety, and	security											
4. Transport service			•					+	1.1			4.1.1.1, 4.1.1.	2, 4.1.1.3
5. Transport pricin	_			5.2	!			5.	2.1			5.2.1.1	
6. Institutional and	d regulator	y develo	pment										
12. Purpose of the	project					13. Ex	pec	cted	Benefits/0	Outcome	S		
 Establishment of by integrating ended CACSA. 		, .	•	•	•	• The	e ef	ficie	ncy of logi	istics serv	rices		
14. Project Descrip	otion					15. Sc	cia	l-env	vironment	al consid	eration	1	
A new businessTransfer of asseProcurement of	ts (vehicle	s, etc.) to			ompany	 Social impacts – positive impacts are expected, such as increased qualified staff, etc. Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected. 							
16. Relevant proje		,				4) Environmental Impact Assessment (EIA) – no need							
• LG001, LG002, I													
<u> </u>													
17. Project locatio	n P	rovince:	Natio	onwide					City:				
-													
18. Notes (if any)													
•													

1. Project Code	LG02	!5	2. Projec	t Title	Study on	Non-state	e Mic	ro, Small, and	Mediur	n-sized e	enterprises (MII	PYMES)			
3. Implementation	Agency	MITE	RANS, MIN	CIN, an	d other rele	evant mini	stries	4. Implem	entation	n period					
5. Project cost (but	dget)	25 m	illion CUP	(1 millio	on USD)			Start	2	2023	End	2024			
6. Source of finance	e	⊠ St	ate budge	t		⊠ Exter	nal fir	nancing agenc	ies	☐ For	eign Investors				
		•				•				*					
7. Sector	⊠ Trans ☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge ay ion		☐ Bus	gistics/Carg s passenger vironment titution/Re levant busir	r transport gulation		8. Project Priority			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)				
	Key Areas			9.	Objective (code)	ode) 10. Strategy (code) 11. Goal (code)								
1. Planning and co	•				0.0,0000 (201 01. 01.0	(ooue)		22. 000. (000.	-1			
2. Transport infras			ment												
3. Environment, sa	fety, and	securit	у												
4. Transport service	e and indu	ustry de	evelopme	nt 4.2	2			4.2.1			4.2.1.1, 4.2.1.	2			
5. Transport pricin	g and resc	urce a	llocation												
6. Institutional and	l regulator	y deve	lopment												
• Study the possik (micro, small, ar	ole involve				•	• Th	 13. Expected Benefits/Outcomes The efficiency of cargo transport is improved The capacity of cargo transport services is increased 								
sector	ntion					15 C	15. Social-environmental consideration								
14. Project Descrip Non-state enterpri opportunities in th necessary legal fra capacity developmenterprises are stu Study legal and enterprises to tl Consultation wir companies) Study financial s Study possible in BC system 16. Relevant proje LG001, LG002, L 17. Project location	herefor prograr nvite no viting n s rprises	n, and on-state on-state (Cuban	1) S iii 2) N 3) P 4) E	ocial ncrea latura Polluti	impacts – po sed qualified : al Environmer on – no signif	sitive im staff, etc t – no s cant im	npacts ar c. ignifican pacts ar	e expected, suc t impacts are e: e expected. EIA) – no need							
18. Notes (if any)															
•															

1. Project Code	LG0	26	2. Projec	t Title	Study or	n the	provision	of busir	ness o	pportunit	ies to i	nternational co	mpanies	
	•	•												
3. Implementation	Agency	MITRA	NS, MIN	CEX				4. Impl	ement	tation per	iod			
5. Project cost (bud	dget)	25 mill	lion CUP	(1 milli	on USD)			Sta	rt	202	:3	End	2024	
6. Source of finance	е	Stat	te budge	t			External f	inancing	g agen	cies	□ Fo	reign Investors		
7. Sector	☐ Road ☐ Railv ☐ Avia	vay		☐ Bu ☐ En ^r Ins	gistics/Carg s passenge vironment stitution/Re levant busi	r tra egula	ation	Pri	Projec ority	t		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
	Key Areas	i		9.	Objective ((code	e)	10. St	rategy	(code)		11. Goal (cod	le)	
1. Planning and co														
2. Transport infras		•	nent											
	Environment, safety, and security Transport service and industry development													
·		4.3.1 4.3.1.1				4.3.1.1								
-	Transport pricing and resource allocation Institutional and regulatory development													
o. mattational and	тедини	ry acvere	эртисти											
12. Purpose of the	project						13. Exped	ted Ber	nefits/	Outcome	S			
Study possible in companies in th				al logist	ics		 The efficiency of cargo transport is improved The capacity of cargo transport services is increased 							
14. Project Descrip	ntion						I he capacity of cargo transport services is increased 15. Social-environmental consideration							
More internationa to provide the servadministrative probusiness to invite i regard.	I transpor vices in Cu cedures, a	ba. The i	necessar ible locat	y legal tions fo	framework r their		Social impacts – positive impacts are expected, such as increased qualified staff, etc. Natural Environment – no significant impacts are expected Pollution – no significant impacts are expected. Environmental Impact Assessment (EIA) – no need							
 Study legal and companies to the 	_	•		_		al								
Consultation with	-	_												
 Study possible involvement of the international cargo transport companies at the international gateways (ports, airports) 														
16. Relevant project(s)														
● LG001, LG002, LG003, LG023, LG024, LG025														
17. Project location	n F	rovince:	Nati	onwide				Cit	y:					
	•													
18. Notes (if any)														
•														

1. Project Code	LG02	27	2. Projec	t Title	Study on	n Nation	nal Logis	stics	s Authority					
3. Implementation	Agency	MEP,	MITRANS	, MINCE	EX, MINCIN	I		4. I	Implement	ation per	iod			
5. Project cost (bud	dget)	25 mi	llion CUP	(1 millio	on USD)				Start	202	3	End	2024	
6. Source of financ	e	⊠ Sta	ite budge	t		⊠ Ext	ternal f	inar	ncing agend	cies	□ Fo	reign Investors		
		•								•				
7. Sector	☐ Road, ☐ Railw ☐ Aviat ☐ Port/	/Bridge /ay ion		☐ Bus ☐ Env	gistics/Carg s passenger rironment titution/Re evant busii	r transp	n	·s	8. Project Priority	:		Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
F														
	Key Areas			9.	Objective ((code)		1	0. Strategy	(code)		11. Goal (cod	e)	
1. Planning and coo														
Transport infrast S. Environment, sa		· ·												
4. Transport servic				nt 4.3	3		4.3.1 4.3.1.1							
5. Transport pricing														
6. Institutional and	regulato	y devel	opment											
12. Purpose of the	project					13	3. Exped	ted	Benefits/0	Outcome	5			
 Study the possible responsible for I 					-	•	Capacity and quality of cargo transport planning and administration are improved							
14. Project Descrip	tion					15	15. Social-environmental consideration							
Various empressas under different OS ministries. This ma transportation in the a series of the propobjectives and stra under a single auth	DEs. Besic y lead to the he countro posed carg tegies nee	des, the the inef y. In this go trans	se OSDEs ficiency o s regard, port sect	are und f cargo it is cons or devel	ler differen sidered tha lopment	nt 2)	increa Natur Pollut	ased ral E tion	d qualified Environmer – no signif	staff, etc nt – no sig ficant imp	gnificar pacts ar	re expected, su nt impacts are e re expected. (EIA) – no need		
 Feasibility study monitor, manag 		_	-	-	•									
16. Relevant projec	ct(s)													
• LG001, LG002, LG003, LG025														
17. Project location	n P	rovince	: Nati	onwide					City:					
18. Notes (if any)														
•														

Project for Formulation of National Transport Master Plan in the Republic	of Cuba
Final Report	-

Chapter 6

Appendix A7: Environment Sector

					Technica	al assis	tance fo	or e	mission	mon	itoring i	in tran	sport sector (ro	ad. railwav.	
1. Project Code	ENV00	01	2. Proje	ct Title	maritim									,	
		1													
3. Implementation Agency	1	MITRA	NS/CITMA	4				4.	Implem	enta	tion per	riod			
5. Project cost (bu	dget)	Grant	aid						Start		202	23	End	2030	
6. Source of finance	e	State ■ State	e budget			⊠ Ex	xternal	finaı	ncing ag	encie	es	□ Fo	reign Investors		
						•									
7. Sector	⊠ Roa ⊠ Rai ⊠ Avi	•	е	⊠ Bus ⊠ Env Inst	istics/Carg passenger ironment citution/Re evant busi	r trans egulation	on	ers	8. Pro	•			Immediate (2022 – 2023) Short-term (2024 – 2026) Medium-term (2027 – 2030)		
K	Cey Area	S		9. Ob	jective (co	de)		10). Strate	gy (co	ode)		11. Goal (cod	e)	
1. Planning and co	ordinati	on													
2. Transport infras	tructure	develop	ment												
3. Environment, sa			У												
· ·	Transport service and industry development														
'															
Transport pricin Institutional and															
o. mstitutional and			<u> </u>												
12. Purpose of the	project						13. Expected Benefits/Outcomes								
updated. However measurement in railway, maritim To monitor emisare required. Set emiso Procure	Currently, vehicle emission standards set in 2001 are being updated. However, there are no emission standards, measurement methods, and equipment for heavy vehicles, railway, maritime and aviation sectors. To monitor emissions from the transport sector, the following are required.								ementat ntial em ribution stimated t require sion fact	ission of ission of the nation	of emiss on reductional to tts of interesting are calculologies	ion rec tion fro targets ternati ulated	ated and it can duction measure om transport se son emission reconal agreement from real measurer	es. ctor and duction can as (MARPOL, urements.	
14. Project Descrip	otion						15. Soc	ial-e	environr	nenta	al consi	deratio	on		
emission standa Set emission stamaritime and av Procure emission	Update vehicle emission standards and set heavy vehicle emission standards Set emission standards and measurement methods for railway maritime and aviation sectors Procure emission measuring equipment and train personnel for vehicle/emission inspection and monitoring.							4) Environmental Impact Assessment (EIA) – N/A							
Stage 1: Updating and monitoring Stage 2: Analysis of results Stage 3: Establish methodologies for each transport sector.															
16. Relevant proje	ct(s)														
• N/A															
17. Project locatio	n	Pro	vince:	Nation	wide						City:	N,	/A		
18. Notes (if any)															