Chapter 1 Project Profiles for Short-Term Projects

CHAPTER 1 PROJECT PROFILES FOR SHORT-TERM PROJECTS

Project Profiles for Short-Term Projects identified in transport mode of Road, Railway Port and Inland Waterway are compiled in this chapter. Each project profile of the project consist of followings:

- 1) Project description sheet which include: brief of project, and major development components and schedule
- 2) Project location map
- 3) Cost breakdown of the project

Some projects proposed to implement up to year 2000 (short-term) are not included. They are project already in implementation stage, at present, on only study such as feasibility.

Project profiles contained in this chapter are as followings:

Code No.	Project Name
Road Projects	;;
RD 1	Improvement of National Road No. 1
RD 3	Improvement of National Road No. 2
RD 9	Improvement of National Road No. 18
RD 12	Improvement of National Road No. 70
RD 16	Improvement of National Road No. 379
RD 17	Urgent Bridge Improvement & Reconstruction of National Roads
RD 18	Urgent Bridge Improvement & Construction of Rural Roads
RD 19	Rehabilitation of National Roads in the Red River Delta Area
RD 21	Improvement & Rehabilitation of Rural Roads in the Northern
	Part of Vietnam
RD 22	Training Center & Procurement of Road Maintenance Equipment
Railway Proje	ects;
RW 1	Ha Noi - Hai Phong Line Passenger Transport Improvement
RW 2	Establishment of a New Railway Education & Training Center
RW 3	Gia Lam Workshop and Rolling Stock Depots Improvement
RW 4	Long Bien Bridge Replacement and Repair of Other Bridges
RW 5	International Transport by Railways
RW 6	Establishment of Management Information System and
	Telephone Improvement
RW 7	Renovation of Rolling Stock
RW 8	Ha Noi Urban Transport by Railways
RW 9	Strengthen of Freight Transport

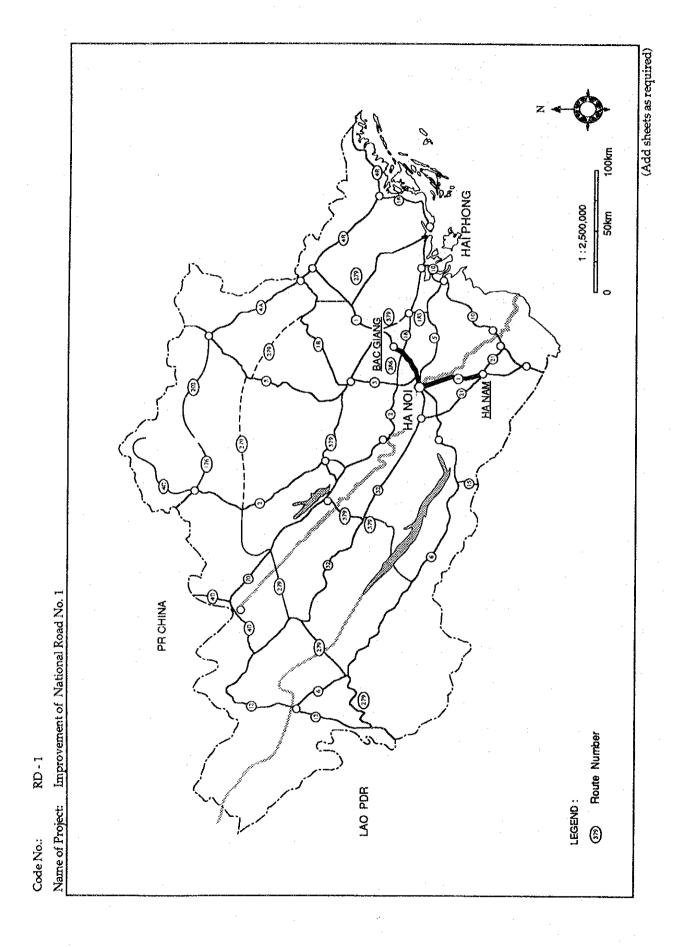
Code No.	Project Name
Port Projects	
PS 1	Hai Phong Port Urgent Rehabilitation
PS 3	Cai Lan Port Development, including
	- Installation of Buoys and Construction of Light-House
	- Removing and Reconstruction of B-12 Oil Terminal
	0
Inland Wate	rway Projects;
Inland Wate	
	rway Projects; Ninh Binh Port Rehabilitation and Extension
IW 1	rway Projects; Ninh Binh Port Rehabilitation and Extension Ha Noi and Viet Tri Port Improvement
IW 1 IW 2	rway Projects; Ninh Binh Port Rehabilitation and Extension

Initial Environmental Examination (IEE) on the Short-Term Development Projects which listed above are compiled in the following Chapter 2.

ROAD PROJECTS

(Project Profile) Short-Term Development

Code No.	Name of Project:						×	Mode:						1	Tocation.				
RD-1	Improvement of National Road No. 1	ıd No. 1						Road							Sac Giar	Bac Giang - Ha Noi - Ha Nam	Noi - F	S Nam	
Development Body:		Ministry in-charge:	28				1	Project Cost:	ost:				Э	USS		Technic	al Assi	Technical Assistance	
Vietnam Koad, Auministration bureau (VKAB) Operation Body;	eau (Vaab)	Ministry of Transport and Communications (MOTC) Section:	insport and	Comm	unicati	ons (MO.		10,800 Dong)	(201		Total		174,2	84 784 000	<u> </u>	Karegid Dott	'œ'd [2] 489	☑ req'd ☐ notreq'd	ă,
VRAB)		Vietnam.	E	87,4	87,421,000	T	[2] F	8	not reg'd	Ď,
Brief of Project: (Exst. condition, De	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	tionale etc.)					Major D	evelop	Major Development Components:	mpone	ıts:		ζζ	Specific Issues Remaining:	es Ren	taining:			1
the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements. In particular, National Roads in the Red River Delta area have key roles in road transportation, since about 80 % of origin-destination trips in the Northern part of Vietnam are concentrated in the delta area. National Road No. 1 functions as a major corridor between North and South in Vietnam. In particular the section from Bac Giang to Ha Nam is expected to have a rapid increase of traffic volume to 10,800 PCU/day in 2000 and 36,100 PCU/day in 2010 (this traffic volume does not include the intrazonal movement). Therefore, widening of the road from 2 lanes to 4 lanes will be required by the year 2000. A shoulder 3.0 m wide is needed on both sides to accommodate bicycles and pedestrians, and it is important that at least part of this shoulder also be smooth-surfaced, in order to successfully shift non-motorized users from the roadway proper. The road widening of the sections Lang Son - Ha Noi and Ha Noi - Vinh has been financed by the IBRD. Detailed design has been done and the construction work will be completed by the end of 1997.	equent mobility and door to savoided by a combination on the Red River Delta area him the Northern part of Vietres as a major corridor betwee Vam is expected to have a rap 1010 (this traffic volume does hanes to 4 lanes will be required in order to successfully stons Lang Son - Ha Noi an and the construction work w	door accessibility. He fraffic control measuave key roles in road nam are concentrated in oid increase of traffic not include the intragined by the year 2000 mians, and it is imposibilit non-motorized used Ha Noi - Vinh has ill be completed by the ill be completed by the ill be completed by the intragination of the intragi	However, these advantages can assures and road improvements. Besures and road improvements. And transportation, since about ted in the delta area. The in Vietnam. In particular the fic volume to 10,800 PCU/day in itrazonal movement). Therefore, 2000. A shoulder 3.0 m wide is apportant that at least part of this it users from the roadway proper. The been financed by the IBRD. The end of 1997.	ese ad ad imjun, s area. Inion, s area. In p 10,800 ement, lider 3 at least are road moed t 1997.	articul articul PCU/ Then part (way p	ar the cefore, ide is of this roper.	N Z Z	Number of L. Pavement Ty Typical Cross	9. S. 6.		4 with shoulders (2 x 3 m) Hotmix Asphalt Concrete, Asphalt concrete, As treated base, 15 cm 5ubbase, 30 cm n	ulders sphalt norete, 10 cm base, 15 cm 30 cm		ine problem of widening the ngin-or- way should be resolved, and even this widening cannot entirely accommodate the traffic volume for the section from Ha Noi to Ha Nam in the year 2010. An additional road of freeway sandard probably will be required. As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	obusin Sg can ic volul tal roc y will by an env chapte ation, \(\)	or war of the resonant of the control of the contro	Jenning Wed, the set t	ening the ingili-or- ved, and even this irely accommodate the section from Ha the year 2010. An freeway standard red. ntal impact, please itial Environmental 3.	ignt-or- en this modate con Ha off An andard please mental
Development: Serial Year	1st. Year (1995)	2nd. Year (1996)	3ro	3rd. Year (1997)	266		4th, Year (1998)	1 (1998)		4	5th Year (1999)	₹		6th Vear (2000)	(002		1.	Š	-
Schedule Calender Month Items Serial Month	donth 3 6 9 12	3 6	12 3	9		12 3	9	6	12	10	6	12	- "	9	6	12	3		, 2
1. Feasibility Study						-							ļ		-	 	1	-	-
2 Detailed Design/Bid Documents													ļ			-		-	-
3. Bidding/Negotiation							_	<u> </u>				ļ	_			-		-	
4. Procurement & Implementation												-					-		
					1		-					-					1	-	\dashv



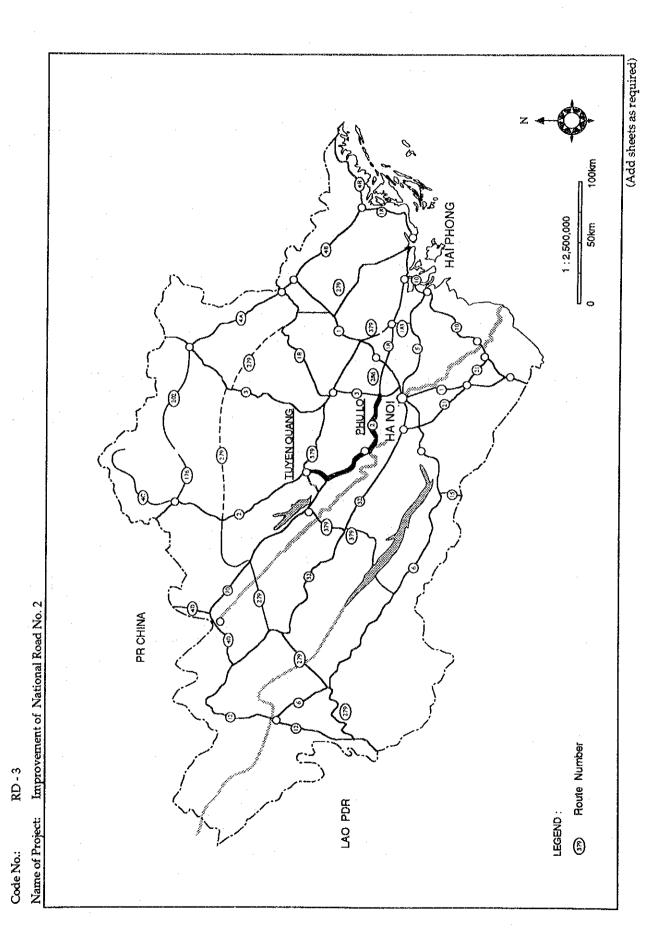
Code No.: RD-1 Name of Project: Improvement of National Road No. 1	N. o. 1						-			Unit: US\$1,000
Description	(2)	(3)		(4)	(5)	(9)	6		(8)	Remarks
	Unit	Q'ty	-	Unit Cost	Amount	FCP	LCP	FG.	ğ	
(1) Earthwork		:			6,762	4,057	2,705	99	40	
(2) Pavement		**********			60,373	36,224	24,149	8	40	
(3) Bridges					22,369	2,270	50,05	8	40	·
(4) Drainages/Others					24,839	14,903	966'6	8	34	
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Sub-Total					114,343	909'89	45,737	8	\$	
Contingency (10 %)					11,434	6,860	4,574	98	94	
A. Total of Direct Construction Cost					125,777	75,466	50,311	09	40	
B. Detailed Design & Supervision (A x 15 %)					18,866	11,320	7,546	99	40	
C. Land Acquisition Cost					29,564	0	29,564	0	100	
D. Total Project Cost					174 207	86.786	87.421	ទ	eg G	
						20,000	172/10	3	2	

Exchange rate: 1US\$ = 10,800 Dong

Total Direct Cost (Price of 1993)

(Project Profile) Short-Term Development

Code No.	Name of Project:					Mode						13	Location:				
RD-3	improvement of National Road No. 2	5.2				Road	ਚ					<u> </u>	hu Lo -	Phu Lo - Viet Tri - Tuyen Quang	- Tuye	Quang	
Development Body:	(a, 4 a?)	Ministry in-charge:				Project Cost:	Cost				USS			Technical Assistance:	al Assis	ance	
Operation Body:	ובפח (אַעיניי)	Munistry of Transp	of Iransport and Communications (MOTC)	ications (P	MOTC)	3	· .		Total	-	103,658,000	8,000	_	(<u>></u>	д. 89-	Z req'd 🗆 not req'd	ø
VRAB				-		10,800	10,800 Dong)		Foreign	F E	52,42	52,427,000	_	Financial Assistance:	l Assist	mancial Assistance:	Ţ
Brief of Project: (Exst. condition, D	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	le etc.)			Majo	or Devel	Major Development Components:	Compon	ents:		Specific	ific Issu	Specific Issues Remaining:	aining:	3	101	3
the apparent advantages of fronts only be realized if congestion in particular, National Roads 80 % of origin-destination trip National Road No. 2 is a maj Traffic volume will increase refrom Route 2 to Viet Tri. The 6,600 PCU/day in 2010, and the movement. These traffic increases require and shoulders. It is especial bicycles and pedestrians, in or	the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements. In particular, National Roads in the Red River Delta area have key roles in road transportation, since about 80 % of origin-destination trips in the Northern part of Vietnam are concentrated in the delta area. National Road No. 2 is a major corridor serving the north-western area in the region of Northern Vietnam. Traffic volume will increase rapidly to 8,600 PCU/day in 2000 and 33,500 PCU/day in 2010 for the section from Viet Tri to Tuyen Quang will carry 1,900 PCU/day in 2000 and 6,600 PCU/day in 2010, and these traffic volumes are understated because they do not include the intrazonal movement. These traffic increases require the strengthening of pavement and bridges, and the widening of carriageways and shoulders. It is especially important to maintain shoulders of adequate width and smoothness for bicycles and pedestrians, in order to successfully shift these non-motorized users from the roadway proper.	accessibility. Howe from the concentrated in the region of and 33,500 PCU/d Quang will carry 1,9 ted because they do and bridges, and the ventices of adequate winotorized users from the contraction.	The grown, since road traffic has reason these advantages can neasures and range advantages can road transportation, since about rated in the delta area. I the region of Northern Vietnam. PCU/day in 2010 for the section carry 1,900 PCU/day in 2000 and they do not include the intrazonal and the widening of carriageways equate width and smoothness for isers from the roadway proper.	ntages ca voements ce about (Vietnan the section intrazon intrazon thness for proper			Pavement Type ; H Typical Cross Section 05 05 60 05 0		4 from Route 3 to Viet Tri (57 km) 2 from Viet Tri (57 km) 2 from Viet Tri to Truyen Quang Hotmux Asphalt Concrete Asphalt concrete, 10 As treated base, 15 or 10 Subbase, 30 on	coute 3 to (57 km) iet Tri to iet Tri to dayshalt concrete, 10 cm ed base, 15 or 10 cm 30 cm		xamina	henviid Hapter Hon, V	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	al Env	act, pie	n rai
											······································						
Development: Serial Year	1st. Year (1995)	2nd. Year (1996)	3rd. Year (1997)	97)	4th.	4th. Year (1998)	98)	35	5th. Year (1999)	€ €	199	6th. Year (2000)	5000)		7th. Year	ar (
Calender Month Items Serial Month	3 6 9 12	3 6 9 12	6 9 €	12	ю	٠,	9 12	en '	9	12	т	vo	6,	12 3	3	9	12
1. Feasibility Study										<u> </u>				-	-	-	
2 Detailed Design/Bid Documents						-				· 				-	ļ	<u> </u>	
3. Bidding/Negotiation													-		-	ļ	ļ
4 Procurement & Implementation						╂┨	$\left \cdot \right $			100			 	-	+	-	<u> </u>
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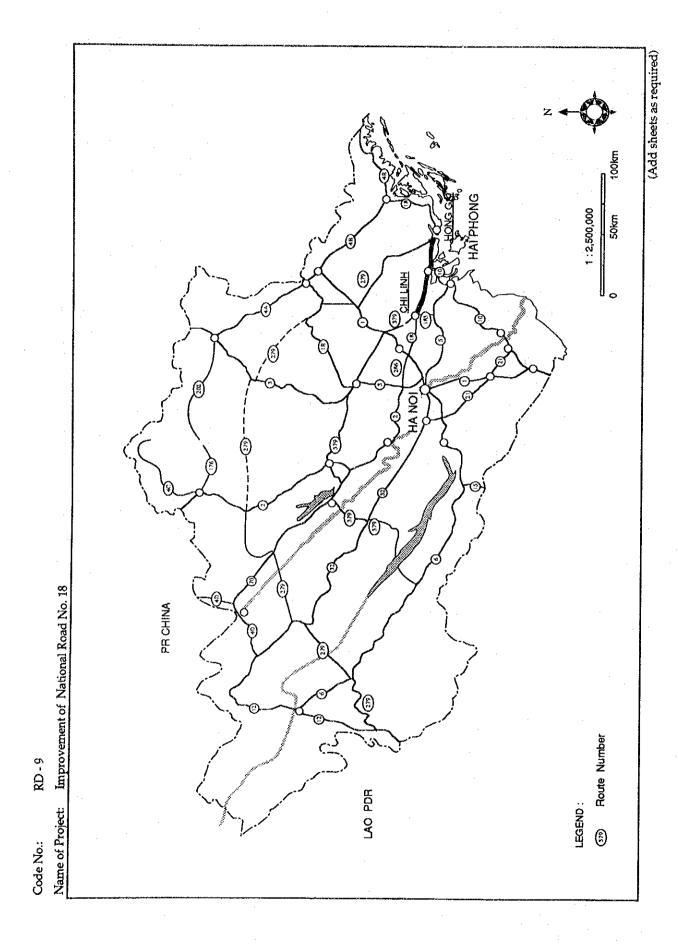


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Description		-,			·				8	Remarks
	U	Unit	Q'ty	Unit Cost	Amount	FCP	LQ.	FCP	I'CD	
					4,131	2,479	1,652	8	8	
(2) Pavement					38,713	23,228	15,485	8	40	
(3) Bridges					10,377	6,226	4,151	-8	5	
(4) Drainages/Others					15,852	9,511	6,341	8	8	
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Sub-Total				4	69 073	41 444	929 22		8	
Contingency (10%)		·			806.9	4.145	2.763	S &	3 \$	
A. Total of Direct Construction Cost					75,981	45 589	30 392	5	\$	
	(A x 15 %)				11.397	6.838	4 559	8 8	\$ 8	
C. Land Acquisition Cost					16.280	C	16.280	٥	13	
D. Total Project Cost					103,658	52.427	51 231	15	40	

(Project Profile) Short-Term Development

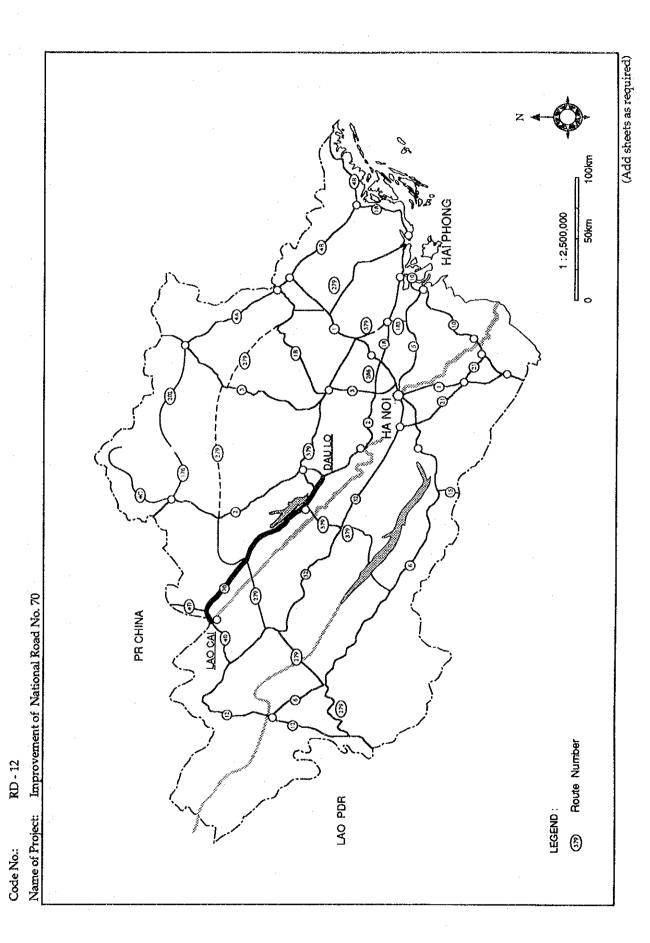
Code No. RD-9	Name of Project Improvement of National Road No. 18	No. 18			Mode: Road				12	Location: Chi Lin	cation: Chi Linh - Hong Gai	igi	
Development Body: Vietnam Road Administration Bureau (VRAB) Operation Body: VRAB	reau (VRAB)	Ministry in-charge Ministry of Transp Section:	linistry in-charge. Ministry of Transport and Communications (MOTC) ection:	tions (MOTC	Project Cost: (1 USS= 10,800 Dong)	ost: mg)	Total Foreign Vietnam	139	USS 139,137,000 67,874,000		Technica Financial	Technical Assistance Technical Assistance Financial Assistance:	p,bas
Brief of Project: (Exst. condition, D	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	onale etc.)		-	ajor Developa	Major Development Components:	nents:	5	pecific Is	Specific Issues Remaining:	raining:		7
The road traffic volume will tend to increase explosively the apparent advantages of frequent mobility and door to only be realized if congestion is avoided by a combination Improvement of National Road No. 18 between Chi Linh of the North Triangle Zone, directly connecting Ha Noi an No. 5 and No. 183. Traffic volume is expected to be 10,400 traffic volume does not include the intrazonal movement. This improvement requires the improvement of Route No Linh.	The road traffic volume will tend to increase explosively along with economic growth, since road traffic has the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements. Improvement of National Road No. 18 between Chi Linh and Hong Gai is very important as a major corridor of the North Triangle Zone, directly connecting Ha Noi and Gai Lan deep sea port of Hong Gai through routes No. 5 and No. 183. Traffic volume is expected to be 10,400 PCU /day in 2000 and 14,000 PCU in 2010. These traffic volume does not include the intrazonal movement. This improvement requires the improvement of Route No. 183 between Route No. 5 and Route No. 18 at Chi Linh.	ang with economic groot accessibility. Howe traffic control measures. Hong Gai is very impolar Lan deep sea port of CU/day in 2000 and 14,0 3 between Route No. 5 a	wth, since road traver, these advanta and road improve rant as a major collection book pcU in 2010. The produce of the produce	affic has sges can sments. Tridor 1 routes these at Chi	- Road Length - Number of Lane - Pavement Type - Typical Cross Sec	···· • • • • • • • • • • • • • • • • •	5 km sphalt conc sphalt conc streated be subbase,	halt 10 cm 15 cm 30 cm	As for refer to Examit	an envii o chapte nation, i	As for an environmental refer to chapter 2, Initial Examination, Volume 3.	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	please mental
Development: Serial Year	r 1st. Year (1995)	2nd. Year (1996)	3rd. Year (1997)	44	4th. Year (1998)		5th. Year (1999)	-	6th. Year (2000)	(2000)		7th. Year (^
Calender Month Items Serial Month	Month 3 6 9 12	3 6 9 12	3 6	12 3	8	12 3	6 9	12 3	9	6	12 3	9	9 12
1. Feasibility Study													
2 Detailed Design/Bid Documents	97												
3. Bidding/Negotiation													
4. Procurement & Implementation								$\ \cdot\ $					
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	OF TACE								Unit: US\$1,000
Description	(5)	(3)	(4)	(2)	(9)	(3)	(8)	· · · ·	G. Comp. C.
To the product of the control of the	Chit	Q'ty	Unit Cost	Amount	FC	Đ,	FG	CC	Nellialika
(1) Earthwork	-			5,884	3,530	2,354	8	6	
(2) Pavement				49,941	29,965	926'61	8	40	
(3) Bridges				12,945	2,767	5,178	8		
(4) Drainages/Others	<u>:</u>			20,656	12,394	8,262	8	40	
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						-	-		
				·					
								 	
Sub-Total				89,426	53,656	35,770	8	\$	
Contingency (10 %)				8,943	5,365	3,578	8	40	
A. Total of Direct Construction Cost				698'36	59,021	39,348	8	4	
B. Detailed Design & Supervision (A x 15	15 %)			14,755	8,853	5,902	8	8	
C. Land Acquisition Cost				26,013	0	26,013	0	100	
D. Total Project Cost	-	٠							

(Project Profile) Short-Term Development

Code No.	Name of Project:						Mode	ie.				<u> </u>	, ocupy				
RD-12	Improvement of National Road No. 70	d No. 70					rž	Road				1	Dau Lo	Dau Lo - Lao Cai	·#		
Development Body: Vietnam Road Administration Russass (VBAB)	(V 0 4 B)	Ministry in-charge:	Ministry in-charge:	1		100	1	Project Cost:				USS		Techni	Technical Assistance:	ance	
Operation Body:	(0cxx) nm	Section:	o transport	ma Com	unicatio	ns (MO)		1 1		Total	80	80,282,000		Ŋ	🛭 req'd 🗌 not req'd	not req	71
VRAB							10,8	10,800 Dong)		Foreign	; '	48,169,000	Τ	Financial C	Financial Assistance:	ance:	4
Brief of Project: (Exst. condition, De	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	ionale etc.)				2	fajor Des	Major Development Components:	Compon	ents:		Specific Issues Remaining:	sues Rex	guinter]	5	
The road traffic volume will tend to increase explosively along with economic growth, since road traffic has the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements.	end to increase explosively al quent mobility and door to s avoided by a combination of	long with econon toor accessibility. traffic control me	nic growth, since road traffic has . However, these advantages can leasures and road improvements.	since ro these ad road im	ad traffi vantage proveme	c has s can ents.	- Roac - Nurr - Pave	Road LengthNumber of LanesPavement Type	anes Pe	; 193 km ; 2 ; Hotmix Asphalt	sphalt	As for refer to Exami	As for an environmental refer to chapter 2, Initial Examination, Volume 3.	ronmer r 2, Ini Volum	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	act, plez ironmer	ន ដ
National Road No. 70 is a major corridor serving the north western area along the Red River, contributing to trade with China. Traffic volume will increase to 1,600 PCU/day in 2000 and 7,900 PCU/day in 2010, and these traffic volumes are understated because they do not include the intrazonal movement:	or corridor serving the north ume will increase to 1,600 PC stated because they do not in	western area alo JU/day in 2000 a dude the infrazor	ng the Red and 7,900 P aal moveme	River, cc CU/day nt:	in 2010, in 2010,	ng to	Aspl As tr	Asphalt concrete, As treated base,	rete, Sc,	Concrete 10 cm 10 cm							
Existing pavement is macadam penetration type, but mostly deteriorated due to the lack of road maintenance. The improvement work needed will include strengthening of the pavement and widening of the carriageway.	ı penetration type, but mostly 1 will include strengthening o	deteriorated duc f the pavement ar	s to the lack nd widening	of road 3 of the c	mainten arriagev	ance. vay.	Subbase,	Subbase, - Typical Cross Section;	Section		· · · · · · · · · · · · · · · · · · ·						
1 - 12								20 00	6.0	S-3							
														,			- Carried and Angelogical Charles
Development: Serial Year	1st. Year (1995)	2nd. Year (1996)		3rd. Year (1997)	(1997)	4	4th. Year (1998)	(1998)	35	5th: Year (1999)	-	6th. Year (2000)	(2000)		7th Year) ta	T
Calender Month Items Serial Month	fonth 3 6 9 12	3 6	12 3	90	9 1	12 3	9	9 12	3	6 9	12	9	6	12	3	9	12
1. Feasibility Study															-	<u> </u>	
2 Detailed Design/Bid Documents						 								-	-		
3. Bidding/Negotiation															-	ļ	
4. Procurement & Implementation														\prod	-	_	
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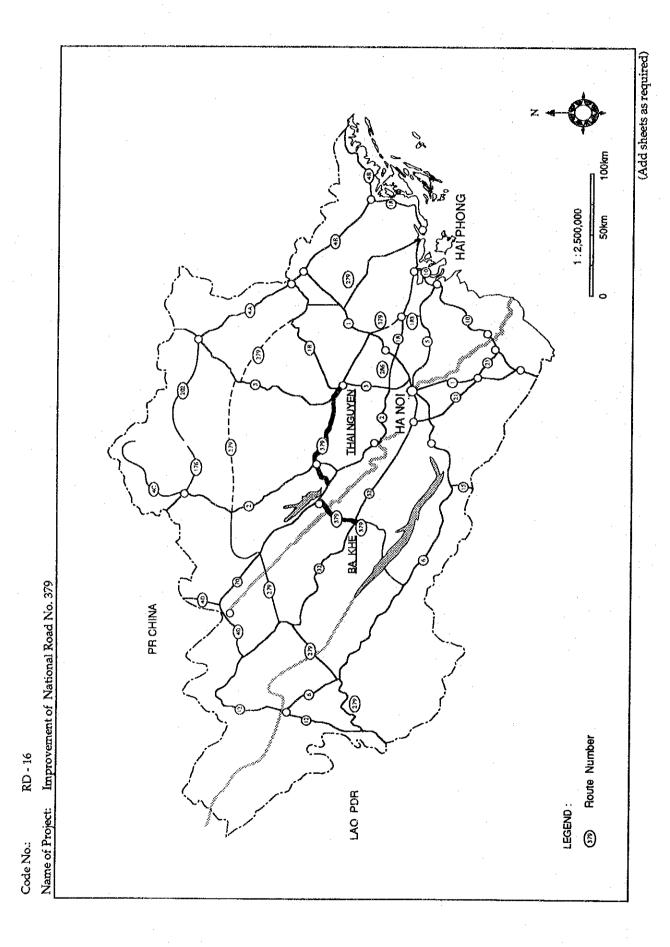


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Description		(2)	(3)	(4)	(2)	(9)	(2		(8)	
		***						-	%	Remarks
TANK TO THE PARTY OF THE PARTY		Unit	Q'ty	Unit Cost	Amount	FCP	Đ]	Ω̈́.	LCP	
		•			2,660	3,396	2,264	8	8	
(2) Pavement					36,147	21,688	14,459	8	40	
(3) Bridges					6,189	3,713	2,476	8	40	
(4) Drainages/Others					15,468	9,281	6,187	8	40	
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Sub-Total		···-	٠		63,464	38,078	25,386		9	
Contingency (10 %)					6,346	3,808	2,538	-8	9	
A. Total of Direct Construction Cost					018'69	41,886	27,924	8	8	
B. Detailed Design & Supervision	(A x 15 %)				10,472	6,283	4,189	8	40	
C. Land Acquisition Cost					0	0	0	,	*	
D. Total Project Cost					80,282	48,169	32.113	69	64	

(Project Profile) Short-Term Development

Code No.	Name of Project:					<u>×</u>	Mode:					Location	į				
RD-16	Improvement of National Road No. 379	979				<u>.</u>	Road					Bark	he - Th	Ba Khe - Thai Nguyen	æ		
Development Body:	77 A 77 A 70 A 70 A	Ministry in-charge:				1	Project Cost:				USS		ě	hnical	Technical Assistance	ا نو ا	
Vietnant Nodu Administration Dureau (V.M.b.)	oureau (v.A.A.b.)	Ministry of Iransport and Communications (MOIC)	ort and Comn	סלפטושור	is (MC		3		Total		67,331,000	8	(Q)	2d√	🗹 req'd 🗌 not req'd	t req'd	
VRAB						5	10,800 Dong)		Foreign		40,399,000	Q	臣	ancial A	Financial Assistance:	23	
- 1						٠.			Vietnam		26,932,000	Ω		7 red.	🗹 req'd 🗌 notreq'd	t reg'd	
Brief of Project: (Exst. condition,	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	etc)				Major D	Major Development Components:	(Compor	ents:		Specifi	Specific Issues Remaining:	Remain	ந்த:			
The road traffic volume will	The road traffic volume will tend to increase explosively along with economic growth, since road traffic has	with economic grow	th, since ro	ad traff	ic has	Ros	Road Length		; 132 km		Así	or an e	viron	mental	As for an environmental impact, please	pleas	q)
the apparent advantages of only be realized if congestion	the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements.	cessibility. Hower	/er, these ad and road im	lvantage provem	s can ents.	Na -	 Number of Lanes Pavement Type 	anes	; 2 ; Hotmix Asphalt	sphalt	refe	refer to chapter 2, Initial Examination, Volume 3.	pter 2, n, Voli	Initial ume 3.	refer to chapter 2, Initial Environmental Examination, Volume 3.	ıment	ā
T	000 -14 F						•		Concrete	ı							
ine improvement or ivation midland area, connecting Ba	the improvement of manonal Road no. 3/9 is quite needed to support the midland area, connecting Ba Khe, Yen Bai, Tuven Quang and Thai Nguyen	ipport the economy at Nguyen. The mi	economy and social welfare in the . The midland area has important	veltare ias impi	in the ortant	Asi	Asphalt concrete.	ete.	10 cm								
roles in the region from the	roles in the region from the stand points of economic growth and provision of basic human needs. The traffic	provision of basic	numan need	s. The	raffic	As	As treated base,	Še,	10 cm								
carriageway, and these traffi	volume will be increased to be 1,200 PCU/day in 2000 and 7,300 PCU/day in 2010, which requires 2 lane carriageway, and these traffic volumes are understated because they do not include the intrazonal movement.	00 PCU/day in 201 ey do not include th	tay in 2010, which requires 2 Ian include the intrazonal movement.	quires 2 moven	lane ent.	Sul	Subbase,		30 cm								
						K	- Typical Cross Section;	Section									
Existing pavement is macadam	Existing pavement is macadam penetration type, but 75 % of the section is more or very poor in condition		deteriorated to the point of being	oint of	being												
in the second se										•							
							0.5 0.5	6.0 0.5									
							=		===								
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Development: Serial Year	1st. Year (1995)	2nd. Year (1996)	3rd. Year (1997)	(1997)	-	4th. Yes	4th. Year (1998)	15	5th. Year (1999)		(4 9	6th. Year (2000)	a		7th. Year	^	
· ·	Calender Month 3 6 9 12 3 Serial Month 3 6 9 12 3	6 9 12	9	6	12 3	9	6	12 3	6 9	12	60	6 9	12		9	6	12
1. Feasibility Study				-	_							-		-			
2 Debelled Decime / Bid Deciment				$ \cdot $	-	-	-		-		╁	-	-	_		1	
- 1				+	+	1	-				-	-		-			
3. Bidding/Negotiation					\parallel	_						····					
4. Procurement & Implementation		:				_[+									
				-	$\frac{1}{2}$						1	-	-	4			

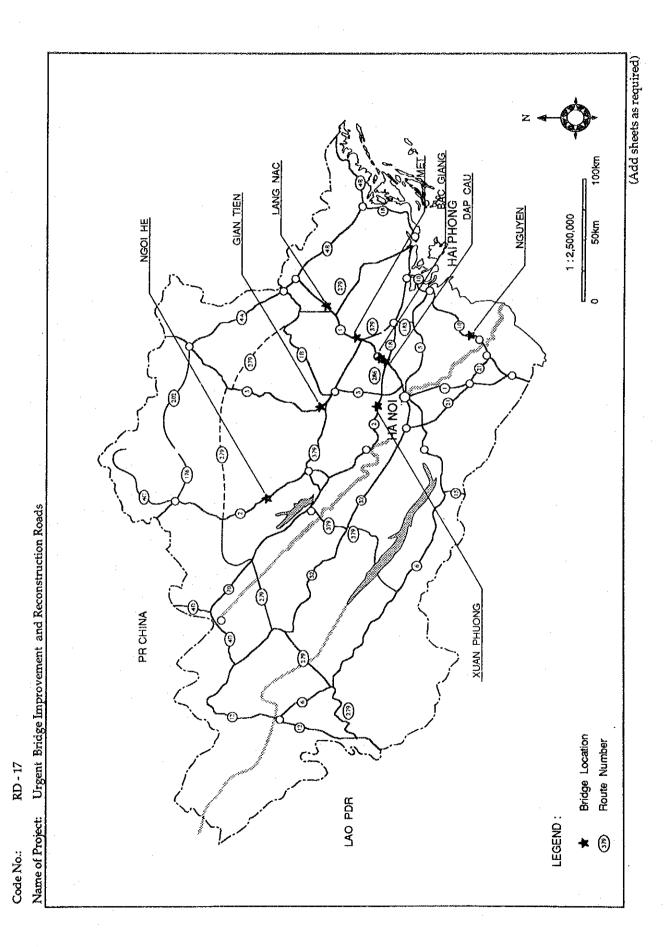


RD-16
Code No.:

Name of Project: Improvement of National Road No. 379	No. 379			:					Unit US\$1,000
	3	(3)	(4)	(5)	(9)	(2))) 	(8)	
Description				-			6	,,,	Remarks
	Unit	Q'ty	Unit Cost	Amount	FCP	LG.	FCP	LCD	
(1) Earthwork				3,379	2,028	1,351	99	40	
(2) Pavement				30,185	18,111	12,074	8	94	
(3) Bridges				7,244	4,346	2,898	.8	9	
(4) Drainages/Others				12,418	7,451	4,967	.99	6	
			-		-				
1 -						, .			
17									
Sub-Total				53,226	31,936	21,290	8	40	
Contingency (10 %)				5,323	3,194	2,129	99	9	-
- 1				58,549	35,130	23,419	09	40	
B. Detailed Design & Supervision (A x 15 %)				8,782	5,269	3,513	09	40	
C. Land Acquisition Cost				0	0	0	•		
D. Total Project Cost				67,331	40,399	26,932	8	04	
			Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Exch	ange rate:	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

Code No.	Name of Project:			Madre									
RD-17	Urgent Bridge Improvement and Reconstruction		of National Roads	Post	-			<u>.9</u>	Location:	,			
				Ž	o d				Northern Part of Viet Nam	. Part of	Viet Na	fi	
Development Body: Vietnam Road Administration Brown AVDADA	(VD 4 to)	Ministry in-charge:	35	Project Cost:	t Cost:			USS	F	Pechnics	Technical Assistance	a) E	
Operation Body:	(AVXV)	Coeffor:	of 1 ransport and Communications (MOTC)			Total	2	26,468,000	, 	Ç	rea'd not rea'd	notredi	***
VRAB		8	Road Administration Bureau (VRAB)	10,800 Dong)	Dong)	Foreign	-	17,469,000		Inancia	Financial Assistance:	110e:	
- 1			Ī			Vietnam		8,999,000		[Z] %	Z reg'd D not reg'd	not req'	44
bries of Project: (EXSt. condition, Dev.	(Exst. condition, Dev. framework, Beneficiaries, Rationale etc.)	ationale etc.)		Major Development Components:	opment Co	mponents:		Specific Issues Remaining:	ues Rem	airing:			
directly a great impact on socio-economic development of the country. In particular, National Road Routes No. 1, 2, 3, 5, 6, 10, 21, 18 and 70 are major arterial roads in the Northern part of Vietnam. On these roads the are 695 bridges which are altogether about 14,200 m long. However, many of them are narrow in width and weak in bearing capacity due to relatively light-duty original construction damages and inadequate maintenance.	conomic development of are major arterial roads in ther about 14,200 m long. relatively light-duty origin	the country. In particular, the country. In particular, the Northern part of Vij. However, many of them all construction damage and construction damage.	tricular, National Road Routes of Victuar, National Road Routes of Victua and anarrow in width and mages and inadequate	reconstructed or transport needs; National Bridge Road No. Name 1 Lang No. 1 Met 1 Bac Gia 1 Dap Ca 2 Nuan P 2 Nuan P 2 Nuan P 3 Gian II 10 Nguen II0 Nguen	wanty ortoges treeds; Bridge Name Lang Nac Met Bac Giang Dap Cau Xuan Phuong Nguen Nguen	25 Snowd ung roved to mee roved to mee 49 + 500 86 + 900 121 + 800 136 + 600 191 + 100 83 + 300 89 + 500	t t (m)	If the budget allows to be allocated to the urgent bridge improvement, more than the listed bridges should be improved and reconstructed: As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	idges all idges shartdge in idges shartdge in cred. or enviro chapter, it in	ows to nprove nould b	be allow ment, re impression al impa a	ated to wore this young the source that worked an over a north source that the	d the
Schedule Schedule	1st. Year (1995)	2nd. Year (1996)	3rd. Year (1997)	4th. Year (1998)	(8)	5th. Year (1999)		6th. Year (2000)	(2000)		7th. Year	r(^
Items Serial Month	ntn 3 6 9 12	2 3 6 9 12	2 3 6 9 12 3	9	12	6 9	12	9	φ.	12 3	9	σ.	12
1. Feasibility Study										-	-		
2. Detailed Design/Bid Documents					-				+	-	-		
3. Bidding/Negotiation									+-	+	-	_	
4. Procurement & Implementation									+		-		
		***************************************							1	\dashv	-		



Access Roads and Miscellaneous Access Roads and Miscellaneous	5	Amount 20,924	(6) FCP 13,810	(7) LCP 7,114	(8) % FCP 66	ICP	Remarks
Unit Q'ty		Amount 20,924	FCP 13,810	LCP 7,114	8	51	Remarks
Unit Q'ty		20,924	13,810	7,114		Ď.	
Bridge Works including Access Roads and Miscellancous Sub-Total		20,924	13,810	7,114	*		
Sub-Total						34	
Sub-Total					•		
Sub-Total							
Sub-Total				•			
Sub-Total				•			
Sub-Total							
Sub-Total						•	
Sub-Total				-			
Sub-Total							
Sub-Total							
Sub-Total		•					
Sub-Total							
Sub-Total							
Sub-Total				-			
Sub-Total			-			····	
Sub-Total		-					
Sub-Total							
Sub-Total							
		20,924	13.810	7.114	Æ		
Contingency (10 %)		2,092	1,381	711		; z	
A. Total of Direct Construction Cost		23,016	15,191	7.825	38	26	
B. Detailed Design & Supervision (A x 15 %)		3,452	2,278	1.174	98	155	
C. Land Acquisition Cost		0	0	0			
D. Total Project Cost		26,468	17,469	8,999	8	12/2	
			10001				

(Project Profile) Short-Term Development

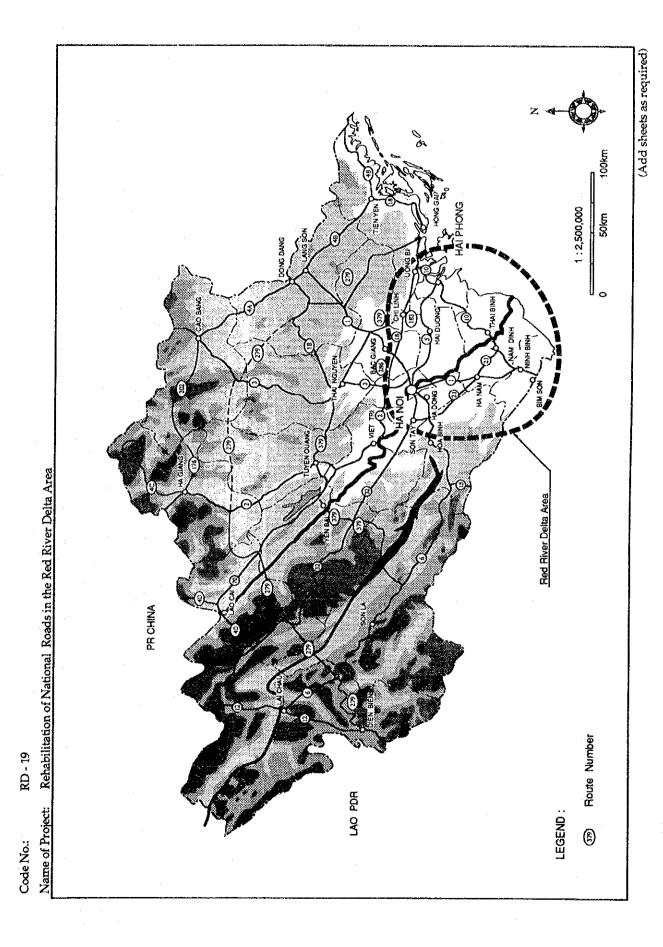
Code No	Name of Decions.									NAMA.											l
RD-18	Urgent Bridge Improvement and Construction of	nt and Co	nstructi		Rural Roads	. <u></u>				Road	. .					} Z 3	forthern 10 provis	Northern Part of Viet Nam (20 provinces)	Viet N	ij	
Development Body:			Minist	Ministry in-charge:	ırge:					Projec	Project Cost:				US\$	5Q		Technical Assistance	1 Assis	ance	
Vietnam Road Administration Bureau (VRAB)	Jureau (VRAB)		Ministry	7	ranspor	t and Cc	of Transport and Communications (MOTC)	ations (MOTC)	3 5 5	Д		Total		46,603,000	80,		[Z] 5	å	Z reg'd Z not reg'd	æ
Operation Body:			yection:	u.						10,800	10,800 Dong)		Foreign	z.	30,758,000	3,000	<u>н</u>	Financial Assistance:	l Assist	ance:	
- 1													Vietnam	arn	15,845,000	000		(Z) E	ga 🗆	🗹 req'd 🗌 not req'd	æ
Brief of Project: (Exst. condition,	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	Rationale	etc)						Ma	or Deve	lopment	Major Development Components:	nts:		Spe	ific Issu	Specific Issues Remaining:	aining:			
The network of rural roads is a very important transportation system from the viewpoints of socio-economic development and fulfillment of basic human needs.	s a very important transports t of basic human needs.	tion syst	em fro	m the v	iewpoi	nts of s	ocio-ecc	nomic		The imp ural roa	roveme id bridg	The improvement and construction of rural road bridges will be implemented	onstructi e impler	ion of nented	ፈ ድ	s for an	hapter	As for an environmental impact, please refer to chapter 2, Initial Environmental	al imp al Env.	act, ple ironme	ase ntal
In particular, bridges on rura	In particular, bridges on rural roads are relatively costly compared with the roads themselves and bridge	compare	with	he roac	ls them	selves	and bric	10e		ırgently	/ in the î	20 provit	ices:		<u></u>	xamina	tion, V	Examination, Volume 3.	ത		
availability is directly connected with the people's life in the local area. About 1,300 bridges totaling 21,500 meters in length are needed in the Northern part of Vietnam (20 provinces). 33 % of the bridges will be	availability is directly connected with the people's life in the local area. Abor meters in length are needed in the Northern part of Vietnam (20 provinces).	the local am (20 p	area. / rovino	s). 33	300 bri % of the	dges to bridge	at 1,300 bridges totaling 21, 33 % of the bridges will be	1,500		Type of		No. of		Length the							
designated as urgent bridge	designated as urgent bridge improvement and construction projects rural roads.	on projec	ts rura	l roads						Road		Bridges		of Bridges	· · · · · · · · ·						
										• Provincial	incial	_									
					•			٠		• Village • Urban	- Se	426	7,1	7,177 m						-	
																				,	
										a.											
																					
		:																			
	-				}											:					
Development: Serial Year	ear 1st. Year (1995)	"	2nd. Yez	2nd. Year (1996)	\dashv	3rd. Y	3rd, Year (1997)	6	#	4th. Year (1998)	88	Sth	5th. Year (1999)	<u>8</u>	₹	6th. Year (2000)	(R)		7th. Year	ar (~
, SE	Calender Month 3 6 9 Serial Month	12 3	9	6	12	3	6	12	3	v o	9 12	m	90	9 12	3	9	0,		e	ον	12
1. Feasibility Study			_														<u> </u>				
2 Detailed Design/Bid Documents	nts							-													
3. Bidding/Negotiation																	-				
4. Procurement & Implementation	 8							<u> </u>		$\frac{1}{2}$	-	-	\dagger				T				
					+	-		-	1	1	-		1				1		$\frac{1}{2}$	$\frac{1}{2}$	

1 - 22

										0,110,000
		(3)	.(8)	(4)	(5)	(9)	(2)		(8)	
Description		Unit	λί, Ο	Unit Cost	Amount	ŦĊ?	LQ.	Ü	LCP	Remarks
(1) Earthwork					1,800	1,188	612	38	34	
(2) Pavement					2,590	1,709	881	*8	35	
(3) Bridges					31,340	20,684	10,656	*8	8	
(4) Others					1,110	733	377	*8	8	
										٠
								·		
	Ü									٠
	,				•••					
Sub-Total	-				36,840	24,314	12,526	8	8. 4.	
Contingency (10 %)					3,684	2,432	1,252	8	34	
A. Total of Direct Construction Cost					40,524	26,746	13,778	38	34	
B. Detailed Design & Supervision	(A x 15 %)				6,079	4,012	2,067	38	34	
C. Land Acquisition Cost	11				· t		•	,	,	
D. Total Project Cost					46,603	30.758	15.845	Ą	27	

(Project Profile) Short-Term Development

Code No.	Name of Project:						Mode	اق					1	Contion				Γ
RD-19	Rehabilitation of National Roads in the Red River Delta Area	ds in the Red Rive	r Delta Area				<u>%</u>	Road					K	ed River	Red River Delta Area	8		
Development Body: Vietnam Road Administration Bureau (VRAB)	Teen (VRAB)	Ministry in-charge	-charge:	7		100	i	Project Cost:				ă	USS		Technical Assistance	Assistan	į į	Τ
Operation Body:	(717)	Section:	of fransport and Communications (MOLC)	and Com	muncati	or (MO) sur				Total	_	34,288,000	000	Т	☑ req'd 🗆 not req'd		t req'd	
VRAB							δ. I	IU,8UU LOORGY		Vietnam	ngu Ham	22,630,000	8 8		Financial Assistance:	Assistano d∷ ∏ no	£ 500.5	
Brief of Project: (Exst. condition, 1	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	ionale etc.)				2	fajor Dev	Major Development Components:	Compo	nents:		Sg	Specific Issues Remaining:	es Rema	ining:]	5	
the apparent advantages of the apparent advantages of the only be realized if congestion. In particular, National Roads 80 % of origin-destination trip. Therefore, National Roads No 1994 and 2000 to accommodeteriorated, and their improconstraints.	the road uname will send to increase explosively along with economic growth, since road traffic has the paparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements. In particular, National Roads in the Red River Delta area have key roles in road transportation, since about 80 % of origin-destination trips in the Northern part of Vietnam are concentrated in the delta area. Therefore, National Roads No. 1, 3, 6, 10, 18, 21 and 32 should be rehabilitated (overlaid) between the years 1994 and 2000 to accommodate the increasing traffic volume. Since most sections of these roads are deteriorated, and their improvement is costly and will be performed after the year 2000, due to budget constraints.	ong with econor ong with econor or accessibility. I traffic control if we key roles in radia are concentrated be rehabilitate ume. Since mo performed after	mic growth, since road traffic has However, these advantages can neasures and road improvements, oad transportation, since about ated in the delta area. ad (overlaid) between the years set sections of these roads are the year 2000, due to budget	since re these are droad in ortation, ortation, delta are of these confidence or these confidence of these confidence or the confidence of the confidence or t	ad traffi vantage aprovem since abo i. n the ye roads i to bud	ents. out	Rehabi of the for Roun from from Roun from Roun from Roun from from from from from from from from	kehabilitation (Asphalt overla) fithe following National Road from Lang Son to Bac Giang from Lang Son to Bac Giang from Lang Son to Bac Giang from Lang Son to Bim Son Route No. 3 (L = 72 km) from Route No. 1 to Thai Ng from Ha Noi to Hoa Binh from Ha Noi to Hoa Binh from Hai Phong to Ninh Bin Route No. 10 (L = 103 km) from Fau Phong to Ninh Bin Route No. 18 (L = 38 km) from Route 1 to Chi Linh Route No. 21 (L = 30 km) from Ha Nam to Nam Dinh Route No. 21 (L = 30 km) from Ha Nam to Nam Dinh Route No. 22 (L = 42 km) from Ha Noi to Son Tay	(Asphal) (Asphal) (C = 103 on to Ba (C = 54) (C = 54) (C = 54) (C = 72) (C = 72) (C = 72) (C = 72) (C = 73) (C = 73) (C = 10) (C = 10) ong to N (C = 38) (C	Rehabilitation (Asphalt overlay $t = 5 \text{ cm}$) of the following National Roads • Route No. 1 (L = 103 km) • Route No. 1 (L = 54 km) • Route No. 1 (L = 54 km) from Ha Nam to Bim Son • Route No. 1 (L = 72 km) from Route No. 1 to Thai Nguyen • Route No. 1 to Thai Nguyen • Route No. 6 (L = 77 km) from Ha Noi to Hoa Binh • Route No. 10 (L = 103 km) from Hai Phong to Ninh Binh • Route No. 13 (L = 38 km) from Route 1 to Chi Linh • Route No. 21 (L = 30 km) from Ha Nam to Nam Dinh • Route No. 32 (L = 42 km) from Ha Noi to Son Tay	yen yen		After the rel periodic ma performed to carried out. As for an en refer to chap Examination	rehabii mainte cd until ut. t enviro hapter, tion, Vo	After the rehabilitation routine and periodic maintenance should be carefully performed until the improvement is carried out. As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	outine roveme fundate by traveme fundate funda	and nt is nt is please nmenta	7 e z
Development: Serial Year	r 1st. Year (1995)	2nd. Year (1996)	(96	3rd. Year (1997)	(1997)	4	4th. Year (1998)	1998)	in	5th. Year (1999)			6th Year (2000)	600		7th Year		-
Schedule Calender Month Tems Serial Month	Month 3 6 9 12	φ 	12	9	6	12 3	9	9 12	m m	9	9 12	ю	9		12 3	9	0	, 2
1. Feasibility Study									-				ļ	ļ	-			T
2. Detailed Design/Bid Documents	Ŋ													-	-		-	T
3. Bidding/Negotiation					<u> </u>		ļ.,_							-	-		-	T
4. Procurement & Implementation								$\ \cdot\ $							-		-	T
			-										1				-	_



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Description		63	(3)	(4)	(5)	(9)	(2)	2 %	(8)
		Unit	Q'ty	Unit Cost	Amount	FCP	LCP.	돲	ΓĞ
(1) Pavement(2) Drainages/Others		· • · · · · · · · · · · · · · · · · · ·			23,569 3,535	15,556	8,013 1,204	38 38	£ £
				•					•
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. :									
Sub-Total	<u>.</u> .			-	27,104	17,887	9,217	*8	37
Contingency (10 %)					2,711	1,789	922	38	34
A. Total of Direct Construction Cost					29,815	19,676	10,139	8	34
B. Detailed Design & Supervision ((A x 15 %)				4,473	2,952	1,521	38	8,
C. Land Acquisition Cost					.0	0	0	1	. 1
D. Total Project Cost					34,288	22,628	11,660	8	34

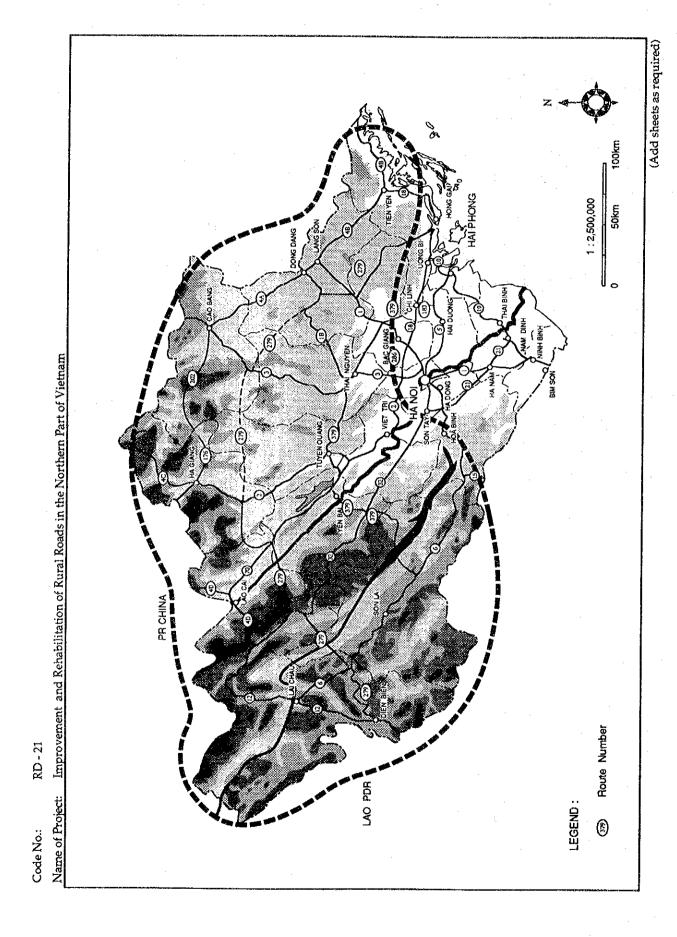
Unit US\$1,000

Remarks

Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

Code No.	Name of Project:		Mode					
	Improvement and Rehabilitation	Improvement and Rehabilitation of Rural Roads in the Northern Part of Vietnam	Road		Northe	cation: Northern Part of Viet Nam	Viet Nam	
Development Body:		Ministry in-charge:	Project Cost:		7 (20 p	(20 provinces)		
Provincial Department of Transport and Communications	t and Communications	Ministry of Transport and Communications (MOTC)	TC (1 USS=		RO	Technic	Technical Assistance	
Operation Body:		Section:		Total	132,321,000		Z req'é Z not req'd	req'd
	-		(Sucori propriori	Foreign	79,393,000	Financi	Financial Assistance:	7,00
Brief of Project: (Exst. condition, Der	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	nale etc.)	Major Development Components:	mponents:	Specific Issues Remaining:	demaining:		3
The road traffic volume will te the apparent advantages of free only be realized if congestion is	and to increase explosively alon quent mobility and door to doc s avoided by a combination of tr	The road traffic volume will tend to increase explosively along with economic growth, since road traffic has the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements.	The improvement or rehabilitatio following components will be implemented in the 20 provinces;	The improvement or rehabilitation of the following components will be implemented in the 20 provinces;	***************************************	vironmen oter 2, Initi n, Volume	tal impact, al Environi 3.	please nentai
The network of rural roads is a very important trandevelopment and fulfillment of basic human needs.	The network of rural roads is a very important transportation system from development and fulfillment of basic human needs.	system from the viewpoints of socio-economic	Type of Road	Road Bridge Length Length				
In the Northern part of Vietnas lengths;	In the Northern part of Vietnam (20 provinces), rural roads comprise the lengths;	comprise the following road classifications and	• Provincial	2,045 km 1,530 m 3,705 km 2,380 m				
rovincial Roads : istrict Roads : illage Roads : rban Roads :	6,136 km 11,116 km 25,445 km 393 km		• Village • Urban					
About one third of the above rehabilitated.	About one third of the above roads, including bridges and drainage rehabilitated.	nd drainage structures, will be improved or						
Development: Serial Year	1st. Year (1995)	2nd. Year (1996) 3rd. Year (1997)	4th. Year (1998)	5th. Year (1999)	6th. Year (2000)	8	7th. Year (^
Calender Month Items Serial Month	40nth 3 6 9 12	3 6 9 12 3 6 9 12	3 6 9 12	3 6 9 12	9	12	3	9 12
1. Feasibility Study								ļ
2 Detailed Design/Bid Documents								<u> </u>
3. Bidding/Negotiation								
4. Procurement & Implementation								
						-		-



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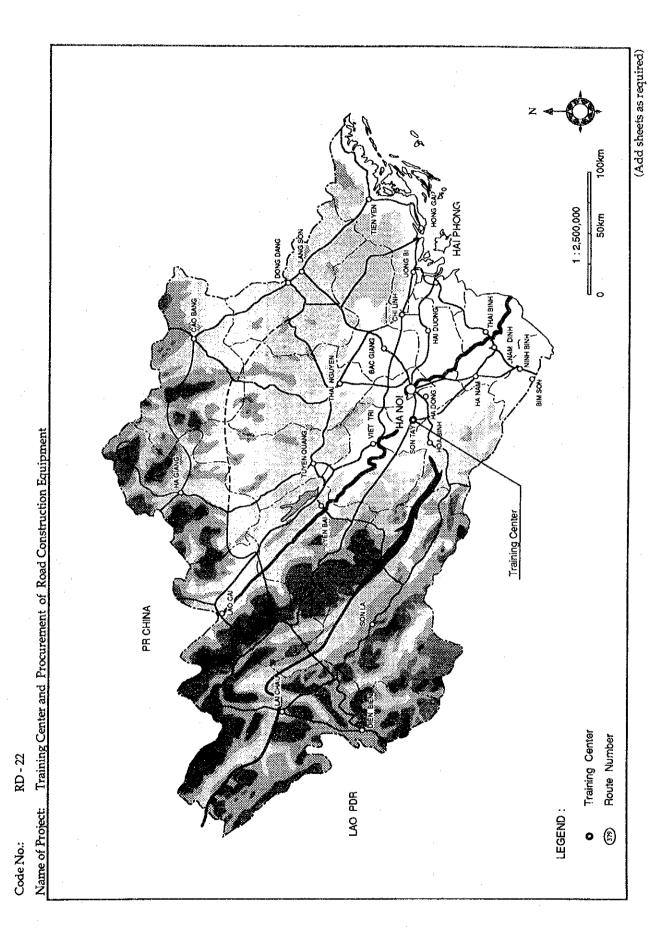
Name of Project: Improvement and Rehabilitation of Rural Roads	of Rura	Roads in the Norther	in the Northern Part of Vietnam						Unit 115\$1 000
Donniertiče	(2)	(8)	(4)	(2)	(9)	(2)		(8)	
Cesculption	Unit	Qʻty	Unit Cost	Amount	FCP	Đ.	Į,	, LGP	Remarks
				13,841	8,305	5,536	8	64	
(2) Favement (3) Bridges		-		69,127	41,476	27,651	8	4	
(4) Drains and Others				20,708	12,425	8,283	8	4	
(*/ Dramages) Cillers				8,747	5,248	3,499	8	6	
								:	
:									
									,
						-			
Sub-Total				112 423	67 454	44 940	9	Ç	
Contingency (10 %)				11 242	201/10	70 / FF	3 5	₽	
A. Total of Direct Construction Cost				1// 007	25,70	1,47/	3		
				123,665	74,199	49,466	8	40	
b. Detailed Design & Supervision (A x 7 %)				8,656	5,194	3,462	60	40	
C. Land Acquisition Cost				0	0	0	-	_	
D. Total Project Cost				132.321	79 393	52 028	ક	Ç	
					2,000	04/740	3	3	

Exchange rate: 1US\$ = 10,800 Dong

Total Direct Cost (Price of 1993)

(Project Profile) Short-Term Development

Location: Training Center at 8a Vi Districe (Ha Tay Province) And Workshops & depots at 3 locations in the Noteware Depots of the Continue in the	USS Technical Assistance	59,144,000	47,315,000 F		Specific Issues Remaining:	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	- La		e kinds equired of the	and spare int		99) 6th. Year (2000) 7th. Year (2001)	9 12 3 6 9 12 3 6 9 12				Operation of Training Center
Mode: Road	Project Cost:		10,800 Dong) Foreign	Vietnam	Major Development Components:	Training Center Up-grading of management and instructors' capabilities; Procurement and repairs of construction equipment and	machinery, - Renovation of training center buildings;	Procurement of Construction Equipment	- Comprehensive study on the kinds and number of equipment required for the maintenance - Status survey for inventory of the	equipment - Procurement of equipment and spare parts - Repairs of existing equipment		4th. Year (1998) 5th. Year (1999)	3 6 9 12 3 6				- Operati
ame of Project: Training Center and Procurement of Road Maintenance Equipment	Ministry in-charge.	Ministry of Transport and Communications (MOTC)			tries, Kationale etc.)	The road traffic volume will tend to increase explosively along with economic growth, since road traffic has the apparent advantages of frequent mobility and door to door accessibility. However, these advantages can only be realized if congestion is avoided by a combination of traffic control measures and road improvements. Therefore, construction, improvement, rehabilitation and maintenance of National and rural roads must be performed as needed.	The training of technicians and workers to operate and maintain construction equipment will be needed in order to meet the huge needs for road construction and maintenance in Vietnam.	Advanced techniques and technology will be taught and practiced through the use of construction equipment at the training center and on site.	Road maintenance (routine maintenance and repair) is conducted for the National Road of 1,256 km in the whole Northern part of Vielnam by 8 sub-regional Road Maintenance Divisions (R.M.D.) under Regional Road Maintenance No. 2, MOTC.	The road maintenance activities are not sufficient to keep the roads in good and fair conditions due to the shortage of equipment and budget. Each R.M.D. has a limited kind and number of equipment such as roller, truck, asphalt kettle, small tracher, water spreader, etc.	· · · · · · · · · · · · · · · · · · ·	55 2nd. Year (1996) 3rd. Year (1997)	12 3 6 9 12 3 6 9 12				
Ž	Development Body: Vietnam Pool Administration Processor	Operation Body:	VRAB	Brief of Brokent (Book and differ Der E.	or in jet (East, containon, Lev. riamework, beneficiaries, kanonale etc.)	The road traffic volume will tend to increase explosively along with econ the apparent advantages of frequent mobility and door to door accessibili only be realized if congestion is avoided by a combination of traffic control Therefore, construction, improvement, rehabilitation and maintenance of performed as needed.	The training of technicians and workers to operate and maintain construction order to meet the huge needs for road construction and maintenance in Vietnam	Advanced techniques and technology will be taught ar at the training center and on site.	Road maintenance (routine maintenance and repair) is conducted for the whole Northern part of Vietnam by 8 sub-regional Road Maintenance Road Maintenance	The road maintenance activities are not sufficient to I shortage of equipment and budget. Each R.M.D. has a truck, asphalt kettle, small tracher, water spreader, etc.		Development: Serial Year 18t. Year (1995)	Calender Month 3 6 9	1. Feasibility Study	2. Detailed Design/Bid Documents	3. Bidding/Negotiation	4. Procurement & Implementation



1 - 31

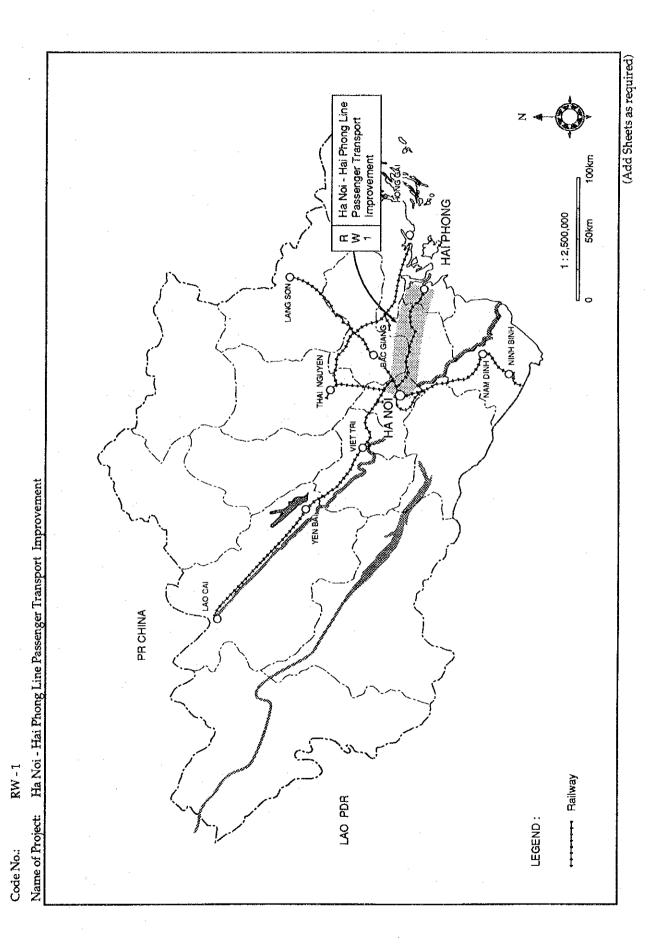
Compactification Compactific										Unit: US\$1,000
Training Center (1) (1) Procurrent and Repair of Maintenance set 50 Lamp Sum 3,000 2,400 600 80 20 20 Equipment of Training Center Building Mr 8,500 Lamp Sum 3,000 2,400 600 80 20 20 33 mon 2 detectors / Procurrent and Repairs of Maintenance (3) Instructors/Jepanese (4) Instructors/Jepanese (4) Instructors/Jepanese (4) Instructors/Jepanese (4) Instructors/Jepanese (5) Education Facility & Vehicles (4) Instructors/Jepanese (5) Education Facility & Vehicles (4) Instructors/Jepanese (5) Education Facility & Vehicles (5) Education Facility & Vehicles (6) Education Facility & Vehicles (7) Education Facility & Vehicles (7) Education Facility & Vehicles (7) Education Facility & Vehicles (8) Education Facility & Vehicles (9) Education Facility & Vehicles (9) Education Facility & Vehicles (1) Frocurrent and Repairs of Maintenance (2) Education Facility & Vehicles (1) Education Facility & Superint (1) Education Facility Control (1) Education Facility & Superint (1) Education Facility (1) Edu	Decription	(2)	(3)	(4)	(5)	(9)	(2)	33 6	33	
Training Center (1)		Unit	O,tì	Unit Cost	Amount	FCP	LG.	FG	ğ	Remarks
Contingency (10 %) Conting	Trai									
(3) Restruction of Training Center Building Mr 8,500 Lamp Sum 2,850 2,280 5.70 80 20 and Related Facilities (4) Instructors/Japanese Mr/M 165 Lamp Sum 3,000 2,400 600 80 20 (5) Education Facility & Vehicles (5) Education Facility & Vehicles (6) Education Facility & Vehicles (7) Education Facility & Vehicles (8) Education Facility & Vehicles (9) Education Facility & Vehicles (1) Protection of Workshops, Lo 3 Lamp Sum 32,000 25,600 6,400 80 20 (1) Propose and Infra. (2) Removation and Construction of Workshops, Lo 3 Lamp Sum 9,000 7,200 1,800 80 20 (2) Removation and Construction of Workshops, Lo 3 Lamp Sum 9,000 7,200 1,000 80 20 (2) Removation and Lamp Sum 9,000 7,200 1,000 80 20 (3) Removation and Lamp Sum 9,000 7,200 1,005 80 20 (4) Removation Cost 1,005 80 20 (5) Contingency (10 %) 5,025 4,020 1,005 80 20 (6) Contingency (10 %) 7,005 80 20 (7) Cost in Removation Cost 1,005 80 20 (7) Cost in Removation Cost 1,005 80 20 (8) Cost In Removation Cost 1,0		set	30	Lamp Sum	3,000	2,400	009	8	20	
(3) Instructors/Japanese M/M 165 iamp Sum 3,000 2,400 600 80 20 20 (3) Education Facility & Vehicles (400 1amp Sum 32,000 25,600 6,400 80 20 20 Equipment and Repairs of Maintenance set 400 1amp Sum 9,000 7,200 1,800 80 20 20 20 20 20 20 20 20 20 20 20 20 20		ğ	8,500	Lamp Sum	2,850	2,280	570	8	20	
(4) Instructors/Vietnamese (5) Education Facility & Vehicles (5) Education Facility & Vehicles Workshops and Depois (1) Procurement and Repairs of Maintenance Equipment and Repairs of Maintenance (2) Renovation and Construction of Workshops, Depois and Infra. Sub-Total Contingency (10 %) Sub-Total Sub-Tota		M/M	165	Lamp Sum	3,000	2,400	009	8	20	33 months
(3) Education Facility & Vehicles Workshops and Depots (1) Procurement and Repairs of Maintenance set 400 Lamp Sum 32,000 25,600 6,400 80 Equipment (2) Renovation and Construction of Workshops, Lo 3 Lamp Sum 9,000 7,200 1,800 80 Depots and Infra. Sub-Total Contingency (10 %)		M/M			,		•	,	ι	
(1) Procurement and Repairs of Maintenance set 400 Lamp Sum 32,000 25,600 6,400 80 Equipment (2) Renovation and Construction of Workshops, Depois and Infra. Loang Sum 9,000 7,200 1,800 80 Sub-Total Sub-Total 5,025 40,200 10,650 80 Contingency (10 %) For all Direct Construction Cost 5,025 40,200 1,005 80 Detailed Design & Supervision (A x 7 %) 5,025 40,200 1,055 80 Land Acquisition Cost 0 0 0 0 0 0 Total Protect Cost 0 0 0 0 0 0 0	(5) Education Facility & Vehicles	,		Lamp Sum	400	320	08	8	20	
(1) Procurement and Repairs of Maintenance set 400 Lamp Sum 32,000 25,600 6,400 80 Equipment (2) Renovation and Construction of Workshops, Depois and Infra. Sub-Total Contingency (10 %) Detailed Design & Supervision Contingency (10 %) Land Acquisition Cost Land Acquisition Cost Coating Contingency (10 %) Land Acquisition Cost Coating Coating Coating Cost Coating Coating Cost Coating				•					1	
(2) Removation and Construction of Workshops, Depots and Infra. Lower Supervision Depote and Infra. 1,800 80 Sub-Total 50.250 40.200 10.050 80 Contingency (10 %) 50.250 44,220 1,005 80 Detailed Design & Supervision (A x 7 %) 5,025 4,020 1,005 80 Land Acquisition Cost 0 0 0 0 0		set	400	Lamp Sum	32,000	25,600	6,400	8	20	
Depoits and Infra. Lower Sum			•							
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 5,589 44,220 11,055 80 Land Acquisition Cost 0 0 0 0 0 0 Total Project Cost 10 cost 1,005 1,005 0 0 0	Depots and Infra.	- ዓ	'n	Lamp Sum	000′6	2,200	1,800	8 -	20	
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 80 11,005 80 Land Acquisition Cost 3,869 3,095 774 80 Total Project Cost 0 0 0 0 0										
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision Cost (A x 7 %) 55,869 44,220 11,055 80 Land Acquisition Cost 3,869 3,095 774 80 Total Project Cost 0 0 0 0 0										
Sub-Total 50,250 40,200 10,650 80 Contingency (10 %) 5,025 40,200 10,050 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 5,586 44,220 11,055 80 Land Acquisition Cost 3,869 3,095 774 80 Total Project Cost 0 0 0 0 0 0										
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 55,869 44,220 11,055 80 Detailed Design & Supervision (A x 7 %) 55,869 44,220 11,055 80 Land Acquisition Cost 3,869 3,095 774 80 Total Project Cost 0 0 0 0 0 -					-					
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 3,869 3,095 774 80 Land Acquisition Cost 0 0 0 0 - Total Project Cost 1,005 0 - -										
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 3,869 44,220 11,055 80 Land Acquisition Cost 0 0 0 0 - Total Project Cost 1,005 0 - -										
Sub-Total 50,250 40,200 10,050 80 Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost 5,025 4,020 1,005 80 Detailed Design & Supervision (A x 7 %) 3,869 3,095 774 80 Land Acquisition Cost 0 0 0 - Total Project Cost 1,005 0 - - -										
Sub-lotal 50,250 40,200 10,050 80 Contingency (10 %) Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost A x 7 %) A x 7 % A x										
Contingency (10 %) Contingency (10 %) 5,025 4,020 1,005 80 Total of Direct Construction Cost Total Of Direct Cost (A x 7 %) 3,869 3,095 774 80 Land Acquisition Cost 0 0 0 0 - Total Project Cost 10 0 0 - - - -	Sub-lotal				50,250	40,200	10,050	8	8	
Total of Direct Construction Cost Total of Direct Construction Cost 44,220 11,055 80 Detailed Design & Supervision (A x 7 %) 3,869 3,095 774 80 Land Acquisition Cost 0 0 0 0 - Total Project Cost 100 100 100 - -	Contingency (10 %)	_		1.	5,025	4,020	1,005	8	20	
Detailed Design & Supervision (A x 7 %) 3,869 3,095 774 80 Land Acquisition Cost 0 0 0 0 - Total Project Cost 100 100 100 - -	- 1				55,869	44,220	11,055	8	20	
Land Acquisition Cost Total Project Cost	Detailed Design & Supervision (A x 7				3,869	3,095	774	8	20	
Total Project Cost					0	0	0			
33,144 44,315 (1,829 Ki	. Total Project Cost				59,144	47.315	11 829	æ	2,	

(Project Profile) Short-Term Development

Code No. RW - 1	Name of Project: Ha Noi - Hai Phong Line Passenger Transport Improvement	roject: Hai P	hong L	ine Pas	Senger	Trans		rover	ent					Mode: Rail	lode: Railway						Location:	2. i. N	cation: Ha Noi . Hai Phong	,		
											İ													•		
Development Body:						Min	Ministry in-charge: MOTC	charge. OTC						Proje	Project Cost; ('000\$) (1 US\$=	(,000%)	L			(S000.) \$SN	(SO	2	Fechnical Assistance	Assista	iğe:	
Operation Body:						Section:	,uo							1	. !		<u> </u>	Total		21,400		· 1	🛂 req'd 🔲 not req'd	ם פ	of req	73
VNR														10,80	10,800 Dong)		٠,	Foreign		18,600		E T	Financial Assistance:	Assista	e .	
- 1	,																	Vietnam		7,800			Y req'd □ notreq'd		of red	ש
Brief of Project: (Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	ev. Framew	ork, Be	neficia	ries, R.	ationale	e etc.)							Maj	or Deve	Major Development Components:	t Comp	onents:			Specifi	Specific Issues Remaining:	Remai	:Suru			
Development in the Red River Delta will generate large passenger transport demand between Ha Noi and Hai	Delta will	gene	ate la	rge pa	sseng	er tran	Sport (teman	d betw	/een H	a Noi	and Ha		High	speed		and	comfortable	rtable	Rail	way w	elding	Railway welding machines might be used	nes mi	ght be	nsed
Phong. Time value' will rise, and, as a result, the demand for fast train o	and, as a	result	the c	leman	d for	fast tr	ain op	eration	s will	increa	Še .	perations will increase. Necessary		accomi	nodati	on by	new di	accommodation by new diesel rail cars	l cars	6	on other lines:	Sec)	
quanties of passetiget transport will be developed including, fast train operation, frequent service, good, car	rt will be eder ceruiv	devel(ped 1	ncinai	ing, ra	Sterral Max	n oper	ation,	rreque	nt ser	7.Ce, gr	20 20 20		(DC)	nd imp	rovem	(DC) and improvement of track.	ack.		:	ć	. •	,	. (C	
track maintenance works, and rationalization of track maintenance man power will be carried out. Related	t rationaliza	ration	of tra	ck ma	intena	nce n	an po	wer w	il be	enger i carried	narket out.	ization of passenger marketing and power will be carried out. Related	1	mprov	ning i 'ement	of ¥	nole tr ain spe	shortening the whole trip time by improvement of train speed, frequent	e by quent	a ë	Hai Phong — Cai Lan lines	្ត ខ្មែ	Hai i'nong — Lao Cai — Dong Dang — Cai Lan lines	<u> </u>	ng Da	20 E
businesses and services, such as shops, restaurants and parking, will absorb overstaffing.	ıs shops, r	estaur	ants a	nd par	king.	will al	sorb o	versta	fing.					rram .	train operations,	ons, f	eder	feeder services and	and			•				
This soil was analyses included	of a minute	1	1, 200				,			į				station	station facilities.	ιň	•			As,	tor an	envir	As for an environmental impact, please	tal im	pact, r	lease
contribute to development of the Red River delta area. VNR will learn the following modern technology and know-how through the project and the related contracts with experts abroad:	the Red Ri and the re	o incit ver de slated	ides it lita ar contra	ems to ea. Vi	or imp NR wi	roven Il lear verts a	nent of n the f broad:	basic ollowi	runcti 1g mo	ons. L dern k	he pro ichnok	ot basic functions. The project will be following modern technology and d:	• •	Streng moder Upgrad	Strengthening modernized tic Upgrading of	g of icketing safety	Strengthening of marketing modernized ticketing system. Upgrading of safety by equippi	ng poin	by a	EXa	r to ch ninatic	apter on, Vo	refer to chapter 2, Initial Environmental Examination, Volume 3.	[편] -	/ironm	lenta]
														rossin	gs with	ı alarm	crossings with alarms and fences.	inces.								
(a) How to maintain of request train operations and good accommodations which will increase the number of	st train op	eratio	ns and	good	accon	pour	tions	√hich	will in	crease	the nu	mber o		Ration	alizatio	in of tr	ack ma	Rationalization of track maintenance by	ce by							
passengers and resulting income; (b) How to perform marketing and pricing functions	income; e and pric	ing fir	notion	U										rail w	elding	and	new m	rail weiding and new machines and	and t							
	blization a	nd mo	derni	zation										roois. Additic	onal di	esel rai	roots. Additional diesel rail cars in 2003.	, 2003.								
 (d) How to plan and implement a project in a market economy, including economic evaluation (e) How to borrow foreign loans for a project. 	ant a proje ans for a p	ct in a roject.	marke	et econ	omy,	includ	ling ec	onomi	evalı	tation																
	4																									
Approximately 500 work-days of man power, contribute to the development of the Red river delta, will be created every day by the time saving effect on passengers. Employment for track maintenance work will be reduced by about 200 positions, however, new modernized jobs will be created for about 80 employees.	s of man saving ef s, however	ower fect or , new	, contr r pass mode	ribute engers rnized	to the s. Em ljobs v	deve ploym will be	lopme ient fo	nt of t track d for a	he Red maint bout 8	d river enance 0 emp	delta, work loyees.	will b will b	0 o													
The feasibility study on improvement of Ha Noi- Hai Phong Line is being will be completed by September 1994.	vement of er 1994.	Ha	뉴	ai Pho	ng Lin	ie is b	eing u	nderta.	ken by	the Bi	itish f	undertaken by the British firm and														
Development: Serial Year		1st	1st. Year (1994)	<u>8</u>	\vdash	2nd.	2nd. Year (1	(1995)		3rd. Ye	3rd. Year (1996)	6	-	4th. Year (1997)	1992	-	Sr. X	5th Year (1998)		- 1	(000L) Year (1000)	ģ	_	75.	7th Year (2000)	١
Schedule Calender Month	1		-	-	5	-	0	- 5	·				1			╁		,		1	; 		-			- 1
Items Serial Month							_			P	n	<u> </u>	n	Þ	<u>-</u> ጉ		•		17	·····	~0 ~~~~		÷ —	•	э л	17
1. Feasibility Study		Щ	+		-																			-		
2 Detailed Design/Bid Documents								_						ļ			ļ									
3. Bidding/Negotiation							-							 		_				\vdash			ļ	ļ		
4. Procurement & Implementation													\prod	$\ \cdot\ $	H	H	\prod			-	-	-		_		
		$\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{1}{1}$	$\frac{1}{2}$			-	-			1	-	$\frac{1}{2}$	-	4			-	_	-	\exists	4	_	_

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RAILWAYPROJECTS

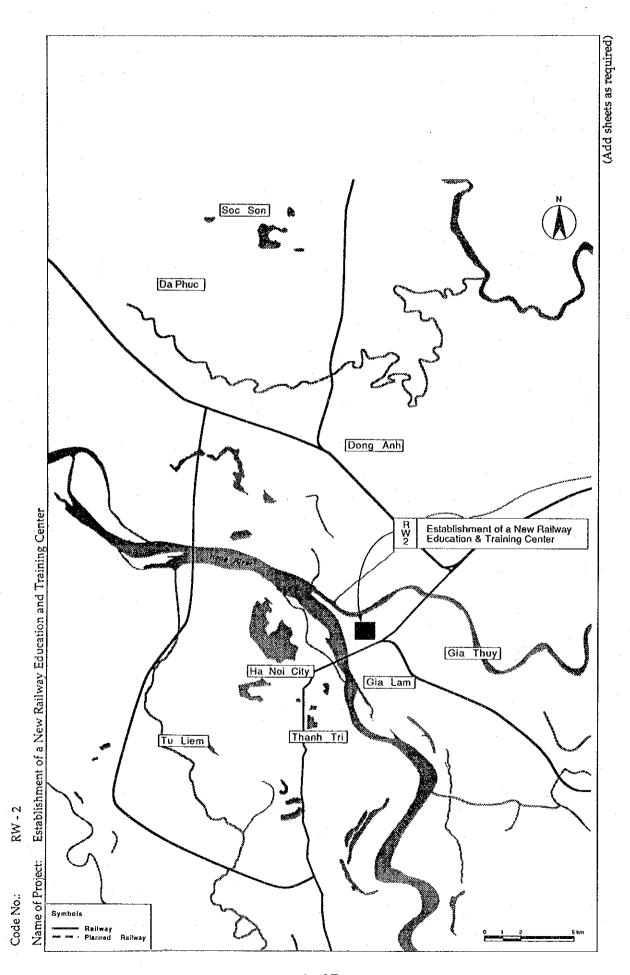


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					L				C161: C241/200
	(5)	(3)	(4)	(2)	(9)	(2)	8	(8)	
Description							8%	:	Remarks
	Unit	Q'ty	Unit Cost	Arnount	FCP	D ₁	FCP	Ď	
Procurement of railcars	car	01	1,005	10,050	058'6	200	8%	2	
Improvement of passenger cars	car	12	150	1,800	1,300	005	23	28	
Improvement of track	km	100	189	1,890	1,500	390	8	21	
Procurement of track construction and maintenance	LS	pri	820	820	09/	- 36	83	7	
machines							, .		
Renovation of stations	sta.	ო	200	009	0	009	0	100	
Fence	km	4	25	100	80	20	8	50	
Improvement of signals	unit	32	10.3	330	300	30	16	σ,	
Level crossing alarm device	unit	20	20	1,400	1,000	400	7	56	i
Ticket reservation system	set		210	210	200	10	33	ıŊ	
	-								
									* 4
•			:		,				
Contingency				1.700	1.500	200	8	5	
A. Total of Direct Construction Cost				18,900	16,490	2.410	28	2	
B. Detailed Design & Supervision (C x 13.2 %)				2,500	2,100	400	2	19	
Land Acquisition Cost				-					
D. Total Project Cost				21,400	18.590	2.810	87	13	

(Project Profile) Short-Term Development

Code No.	Name of Project:								ľ	Mode:							Location:	ion:					
RW - 2	Establishment of a New Railway Education and Training Center	silway Educ	ation and I	raining	Center					Railway	'ay						H	Noi (G	Ha Noi (Gia Lam)				
Development Body:			Ministry in-charge	charge						Project (Project Cost: ('0005)	(9008)				US\$ ('000S)	(\$00	F	Technical Assistance	Assista	106		
Operation Body:		_ u	Section:	,									비	Total		9,800	8	-	🛭 req'd 🗌 notreq'd	<u>a</u>	tot regi	_	
NA'S		<u>'</u>		-					<u> </u>	10,800 Dong)	Song)		유	Foreign		7,800	اء	Œ	Financial Assistance:	Assista	 8		
									\exists				Ä	Vietnam		7,000	ဂ္ဂ	_	🗹 req'a 🗌 not req'd	.a	tot red		
Brief of Project: (Exst. condition, D.	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	Rationale et	ਹ						Major	Develo	Major Development Components:	Compo	nents:			Specifi	Specific Issues Remaining:	s Rem a	ining:				
management, marketing operation, education and training. However, VNR needs improvement, such as management, marketing operation, education and training. However, VNR needs improvement in most of the nation. This is the most important and item for improvement of basic function. Modernization and reform of VNR are executed by human resources. Education and training should be given the top priority and implemented prior to any other projects. It requires several years to prepare an education system, and the effects of education are realized slowly, therefore this project should be commenced as fast as possible. Cost for the project is small but its potential effect is large. Manpower needs to be trained for new management tasks, including the introduction of new technology. Furthermore, vocational training is required for redundant staff so as to prepare them for new employment. Current training facilities are not sufficient. The Vietnamese Government has approved the establishment of a new railway education and training center at Gia Lam. Education and Training programs are as follows: - Management training (2,000 managers/year).	asonatore reverse or an in- ration, education and train- litem for improvement of Education and training sl es several years to prepare project should be comme of for new management the ing is required for redund tot sufficient. The Vietnan ining center at Gia Lam. E managers/year).	uing. How railway sy railway sy basic funct nould be gi ; an educat need as fat need as fat asks, inclu ant staff so rese Gover iese Gover iducation a	stems in stems in stems in Mod ven the to ion system as possional ding the other or as to pre ment harmand Trainian devents as to pre	r rainy R neec line wj p prion n, and lble. C lntrod introd ipare t s appre	ray m is imp the the the city and the ceff cost follows hem for yeed the grams	In ratuway management, such as R needs improvement in most of line with the development of the lernization and reform of VNR are pp priority and implemented prior m, and the effects of education are lible. Cost for the project is small introduction of new technology, epare them for new employment. Is approved the establishment of a lug programs are as follows:	nent, s ent in r m of V encente educat oject i r techt emplo ilishme	uch as nost of the of the prior ion are small small vology.	1 F 1	Suldang con Dverseas trai Equipment a General tra computer, 1 machine, au Language la Manageme Train opera Rolling stoo Mechanical Track main equipment Inspection structure	Overseas training Equipment and machines for training General training equipment; computer, word processor, printing machine, audio visual aids Language laboratory Management teaching tools Train operation simulator Rolling stock structure model Mechanical machine for training Track maintenance tools and equipment Inspection equipment for track structure	ing maching economing economina economing economina econ	hines f hines f cocesso coal aid and aid ing toc nulator ture me te for th	or trair nt; r; print ls sls sls raining und track	gring gring	As Exa	in in the character of	enviro	As for an environmental unpact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	i unpe	onmer onmer	ital	
Vocational training (200 engineers and technicians, 800 workers).	o students). jineers and technicians, 800) workers).							· · · · · · · · · · · · · · · · · · ·	Mater Soil te	Material examination machine Soil testing machine	minati nachin	on max	chine									
										Electr	Electric practice model equipment	tice mo	odel eq	uipme	пţ								
										Mode teleco	Model of signaling and telecommunication	gnaling sication	and										
Development: Serial Year	r 1st. Year (1994)		2nd. Year (1995)	(266		3rd. Year (1996)	ır (1996		4th.	4th. Year (1997)	(466	_	5th. Ye	5th. Year (1998)		6th	6th. Year (1999)	1999)		7th. Y	7th. Year (2000)	6	
Scrientie Calender Month Items Serial Month	Month 3 6 9	12 3	6	12	6	9	٥	21	е п	6	12	m	9	٥	21	m	o	6	12 3		0	12	
1. Feasibility Study										_													
2 Detailed Design/Bid Documents	S									 													
3. Bidding/Negotiation										 													
4. Procurement & Implementation					-				-							H							
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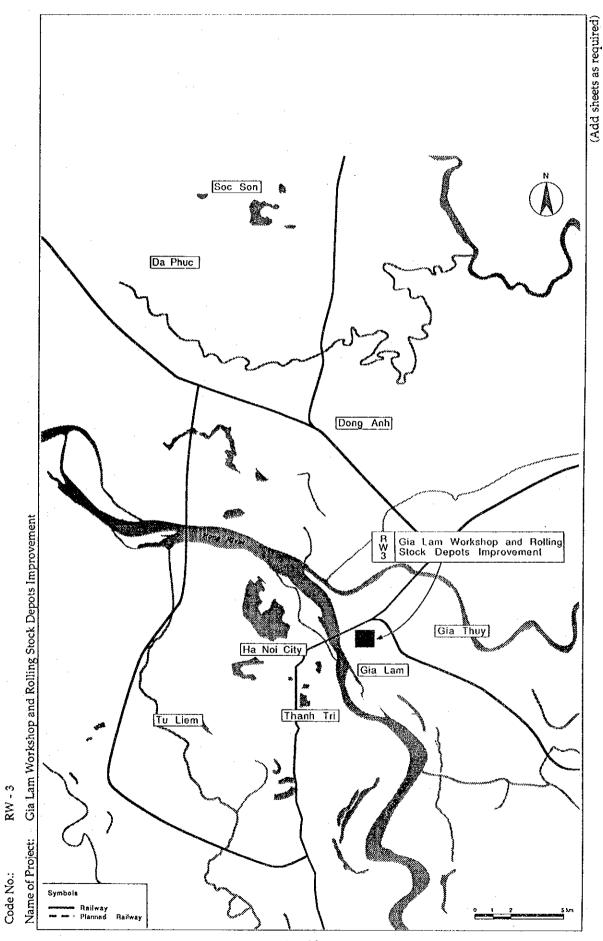
	(2)	(3)	(4)	(2)	(9)	(2))	(8)	
Description	,	i	;					2	Remarks
	Chit	Q'ty	Unit Cost	Amount	FCP	E C	FG.	CJ	
Building	LS	1	1,200	1,200	0	1,200	0	100	
Educational facilities	LS	-	6,800	6,800	6,300	300		7	
Overseas training	LS	÷	200	200	450	50	6	10	
Contingency			800	800	650	150	81	19	
A. Total of Direct Construction Cost				9,300	7,400	1,900			
B. Detailed Design & Supervision (Cx	(C x 5.3 %)			500	350	150			
C. Land Acquisition Cost				·					
D. Total Project Cost				008.6	7.750	2,050			

RW-2

Code No.:

(Project Profile) Short-Term Development

Code No	Name of Project						ŀ		l									ا		İ
RW-3	Gia Lam Workshop and Rolling Stock Depots Improvement	k Depots Improvem	អ៊ី					Railway							Location: Ha No	Si: Noi (G	cation: Ha Noi (Gia Lam)			
Development Body: VNR		Ministry in-charge: MOTC					£5	Project Cost: (000\$) (1 US\$=	st: COX	(Ş				US\$ ('000S)	<u>8</u>	ř	Technical Assistance:	l Assist	ance:	
Operation Body: VNR		Section:					. 10	10,800 Dong)	(g ₁		Foreign Vietnam	Total Foreign Vietnam		35,300		E	Cared'd not req'd Financial Assistance:	Assist [not required	
Brief of Project: (Exst. condition, D.	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	etc.)		-		<u> ~</u>	Major Developinent Components:	velopu	ient Co	mpone	ls:			Specific Issues Remaining:	Spres	Remai	ning:]		,
VNR has a sufficient quantity of rolling stock, but the require urgent upgrading in order to service existing roll installing the following capabilities are necessary: - to overhaul diesel locomotives to manufacture spare parts for D4H locomotives to manufacture or renovate 140 (high grade) 400 to 560 transport to assemble diesel locomotives in the future to assemble diesel locomotives in the future improvement of Ha Noi, Yen Bai and Hai Phong depots. This project is an improvement in basic functions that are for overhauling diesel locomotives, and in order technofreight cars. Locomotives, passenger cars and freight car VNR has sufficient number of locomotives for a while, it is maintenance. As a result, this project will reduce and py locomotives.	VNR has a sufficient quantity of rolling stock, but the capacity of the rolling stock workshop and depots require urgent upgrading in order to service existing rolling stock efficiently. Upgrading of technology and installing the following capabilities are necessary: - to overhaul diesel locomotives to manufacture spare parts for D4H locomotives to manufacture or renovate 140 (high grade) 400 to 560 passenger cars and freight cars of for international transport to assemble diesel locomotives in the future to assemble diesel locomotives in the future to assemble diesel locomotives, and Hai Phong depots. This project is an improvement in basic functions that are essential for railways. VNR lacks a basic capability for overhauling diesel locomotives, and in order technology for repair and overhauling of passenger and freight cars. Locomotives, passenger as and freight cars are essential tools for marketing of railways. As VNR has sufficient number of locomotives for a while, it is necessary to use existing locomotives efficiently by maintenance. As a result, this project will reduce and postpone the need for an investment to procure new locomotives.	k efficiently. Upgger cars and freigger cars and freigger repair and over ssential tools for n ary to use existing the need for an is	uling stock workshop and depots thy. Upgrading of technology and freight cars of for international and overhauling of passenger and overhauling of passenger and ols for marketing of railways. As existing locomotives efficiently by for an investment to procure new	techn techn for int for int passic passic to pre	ology is capabition and dependent of the capabition of the capabit	and onal litty As As As As As As	buil hac Mac and aux repa repa repa parf shoj	buildings track installation Machinery for: car body and transmission gear auxiliary equipment repair, axle box and repair, traction motor repair, electric parts re parts repair, measurin shop and others.	fructic Ilation for: missic equip equip ectric air, n others.	on and and and and and and and and and an		remodeling of repair, engine repair, engine repair, bogie roller bearing and generator pair, air brake g and testing	ng of angine angine bogie earing erator brake testing	As for reference of the	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	on, Verson, Ve	nment J. Initii	al imp	oct, ple ronme	n ta l
Development: Serial Year	1st. Year (1994)	2nd. Year (1995)	3rd.	3rd. Year (1996)	(966		4th. Year (1997)	ar (1997	_	Š	5th. Year (1998)	(1998)		6th	6th. Year (1999)	666		7th. 3	7th. Year (2000)	Î
Calender Month Items Serial Month	4onth 3 6 9 12 3 fh	6 9 12	3	6	12	ю	9	6	12	ю	•	σ,	12	ю	0,	12	3	9	. 05	77
1. Feasibility Study																-	-		-	
2 Detailed Design/Bid Documents									-										-	<u> </u>
3. Bidding/Negotiation													ļ	_	ļ		<u> </u>	<u> </u>		
4. Procurement & Implementation	-				-							-			ļ	 		 	_	
									1				1		-			-	-	

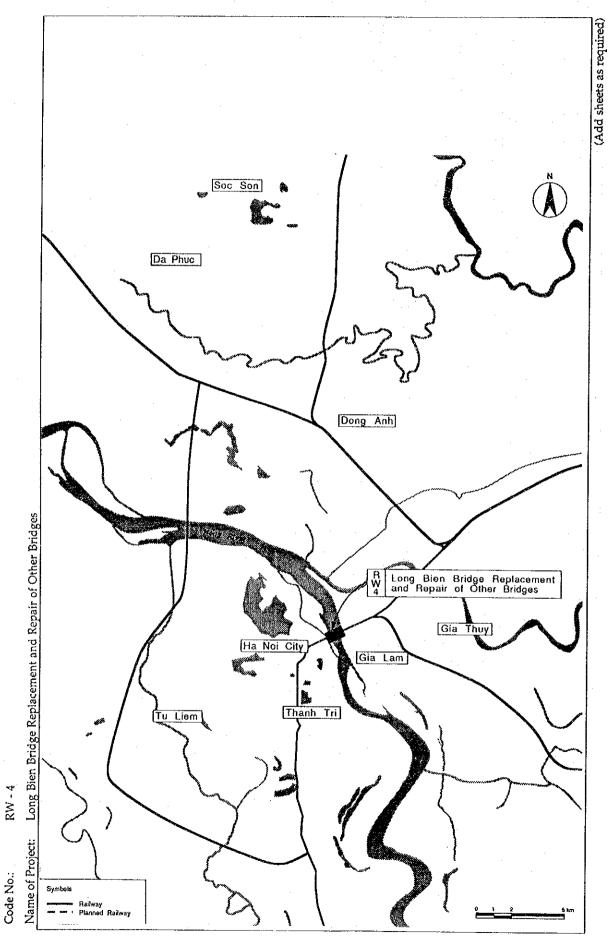


RW - 3
Code No.:

Name of Project: Gia Lam Workshop and Rolling Stock Depots Improvement	and Rolling S	tock Dep	ots Improvement						٠	Unit: US\$1,000
		(5)	(3)	(4)	(2)	(9)	(2)	3	(8)	
Description									22	Remarks
		Unit	Q'ty	Unit Cost	Amount	F.	Ę,	Ę.	ĝ	
Gia Lam Workshop										
Improvement of buildings and tracks		rs Si	₽	1,700	1,700	200	1,200	8	8	
Machines and tools		LS	,	18,890	18,890	18,400	490	26	m	
Utility facilities		ST	~	240	240	0	240	0	<u>8</u>	
Others		rs.		2,250	2,250	2,100	150	. 83		
Depot										
Improvement of buildings and tracks	•	ĽS	.	400	400	100	300	25	33	
Machines and tools		LS	Г	4,960	4,960	4.800	160	26	ĸ	
Utility facilities		ĽS	1	100	100	0	100	. 0	, 001	
Others		SI	1	250	250	500	20	. 6	0	
Л										
		-								
										• • • • • • • • • • • • • • • • • • • •
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			. •							
	·	• • • • • • • • • • • • • • • • • • • •								
Contingency					3,260	3,000	260	- 25	00	
A. Total of Direct Construction Cost					32,350	29,400	2,950	. 91	0,	
B. Detailed Design & Supervision	(C x 9.0 %)				2,910	2,500	410	98	14	4
C. Land Acquisition Cost				:						
D. Total Project Cost					35,260	31,900	3,360	8	91	
				Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Exchi	ange rate	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

Code No	Name of Project						Node:				-			11						r
RW - 4	Long Bien Bridge Replacement and Repair of Other Bridges	d Repair of Other Bridg	. S				Rai	Kailway						3 🖺	Noi a	Ha Noi and other	L		٠	
Development Body: VNR		Ministry in-charge: MOTC					Project CI US	Project Cost: (1 US\$=		L		Ц	US& (1000S)	(\$00)	-	Fechnical Assistance	d Assis	ance		T
Operation Body:		Section:					10,800	10,800 Dong)		H #	Total Foreign		9,100	9,100 8,300	T	✓ req d □ not r Financial Assistance:	🔂 req d 🔲 not req'd nancial Assistance:	not rec	Ę,	
- 1										>	Viennam		1,8	1,800	: 	Z reg'd	as	not req'd	Ţ	
Brief of Project: (Exst. condition, I	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	ale etc.)				Maj	or Deve	Major Development Components:	Compo	nents:			Speci	Specific Issues Remaining:	s Rem	aining				T
soil. There are many issues which need to be studied by 2 and economical study, modern bridge and soil engineering Cultivation of young engineers and technicians would project. If execution of this project is carried on steadily u designed and constructed by Vietnamese themselves. I technology should be emphasized in order to reduce costs in the future. Cost for the project is small and the result of a reduction of cost for replacement of Long Bien bridge. The following issues need to be concluded by 2000: Whether existing caisson piers can still be used or not; Loading scheme and construction standard of the bridge. Urgent repair plan for the present bridge Necessity for double tracking Replacement method for the upper structure Whether raising height of the bridge is necessary or not Establishment of a Bridge Design and inspection Institute Cultivation of young engineers and overseas training Other bridges will be identified with a introduction of science.	soil. There are many issues which need to be studied by 200. Technology, know-how and facilities for social and economical study, modern bridge and soil engineering will be transferred to Vietnam through this project. Cultivation of young engineers and technicians would be implemented by overseas training during the project. If execution of this project is carried on steadily until the year 2000, a new Long Bien bridge could be designed and constructed by Vietnamese themselves. Upgrading of basic knowledge on bridge and soil technology should be emphasized in order to reduce costs of bridge repair that will take a large budget share hin the future. Cost for the project is small and the result of Stage 1 of the project would earn returns in terms of a reduction of cost for replacement of Long Bien bridge. The following issues need to be concluded by 2000: Whether existing caisson piers can still be used or not; Loading scheme and construction standard of the bridge Necessity for double tracking Replacement method for the upper structure Whether raising height of the bridge is necessary or not Establishment of a Bridge Design and Inspection Institute Cultivation of young engineers and overseas training Other bridges will be identified with a introduction of scientific equipment in the future.	Technology, know-h Technology, k	know-how and facilities for social know-how and facilities for social de to Vietnam through this project. By overseas training during the a new Long Bien bridge and soil that will take a large budget share ject would earn returns in terms of the future.	illifies fillifies fillifi	or social or soc		Bridge Urgent repa Urgent repa Urgent repa Urgent repa Urgent repa Urgent repa Urgent repa Urgent repa Urgent repa	Bridge Bridge Urgent repair of bridges To establish a bridge design and inspection institute Overseas training of engineers and technicians A feasibility study on replacement of Long Bien Bridge	of bridges a bridge hiture ning of er study on re	lges of engle on rep	e design and engineers and replacement of	and and and of the control of the co	- Grand	pecause inheritan impact, impact, impact, impact, is replacem design. It may spans of and balli noise.	Ce, as ce, as ce, as ce, as ce, as ce, as cent not not not not not not not not not n	because Long then bridge is a historical impact, the appearance of its eventual replacement must be considered in design. It may be better to construct several spans of the bride with concrete beams and ballasted track in order to reduce noise.	an en	e is a instorical environmental of its eventual considered in instruct several concrete beams rider to reduce	onical antual d in averal educe	
Development: Serial Year	ar 1st. Year (1994)	2nd. Year (1995)	3rd.)	3rd. Year (1996)	(§	4	4th. Year (1997)	(1997)	-	Sth. Y	5th. Year (1998)		149	6th. Year (1999)	(6661)	-	47	7th. Year (2000)	8	Τ-
Schedule Calender Month Items Serial Month	.Month 3 6 9 12	3 6 9 12	3 6	6	12	т	9	9 12	8	9	6	12	m	9	6	12	3	6	12	
1. Feasibility Study															-	\mid			-	T
2. Detailed Design/Bid Documents	ıts													.,,,		 		_		T
3. Bidding/Negotiation															<u> </u>			-		T
4. Procurement & Implementation	#					1		╢							H	$\ \cdot \ $	$\left \cdot \right $		\prod	TT
														1	1		$\frac{1}{2}$	-	$\frac{1}{2}$	-

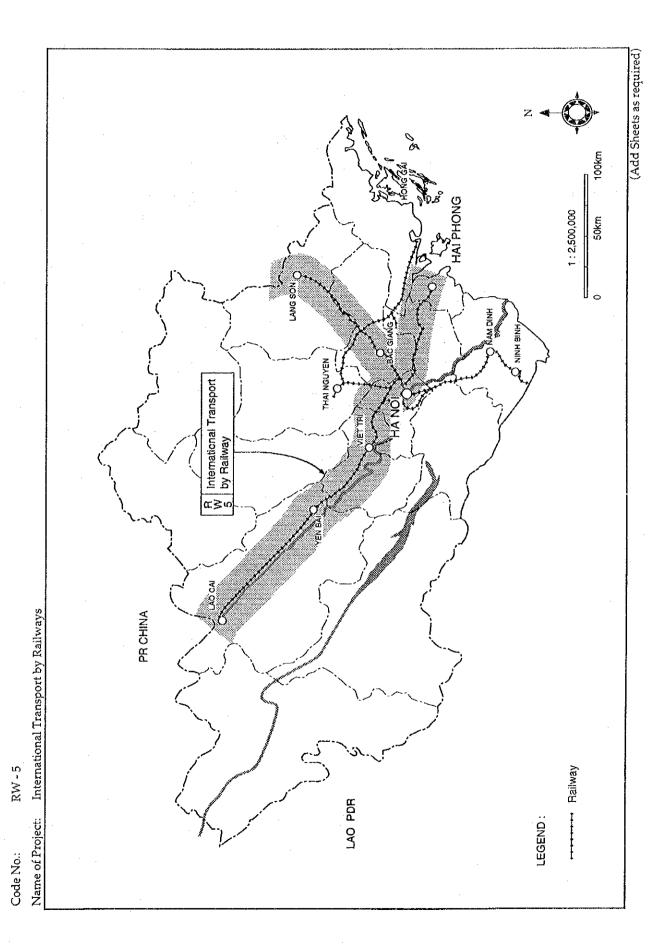


Code No.: RW - 4

Name of Project: Long Bien Bridge Replacement and Repair of Other Bridges	d Repair	of Other Bridges							Unit: USS1,000
	9	(3)	(4)	(5)	(9)	(2)		(8)	
Description								%	Remarks
	Unit	Q'ty.	Unit Cost	Amount	FCP	LCP	FCP	LCP	
Inspection of bridges	S.I.	Ľ	2,500	2,500	2,300	200	25	8	
Study on the replacement of Long Bien Bridge	rs	1	3,300	3,000	2,750	250	26	00	
Urgent repair	1.5	-1	2,480	2,480	2,250	230	6	ο,	
Contingency				820	750	20	9,	6	
A. Total of Direct Construction Cost				8,800	8,050	750	22	6	
B. Detailed Design & Supervision (C x 3.4 %)				300	250	20	88	17	
C. Land Acquisition Cost									
D. Total Project Cost				9,100	006,8	800	16	9	
			Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Excl	nange rab	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

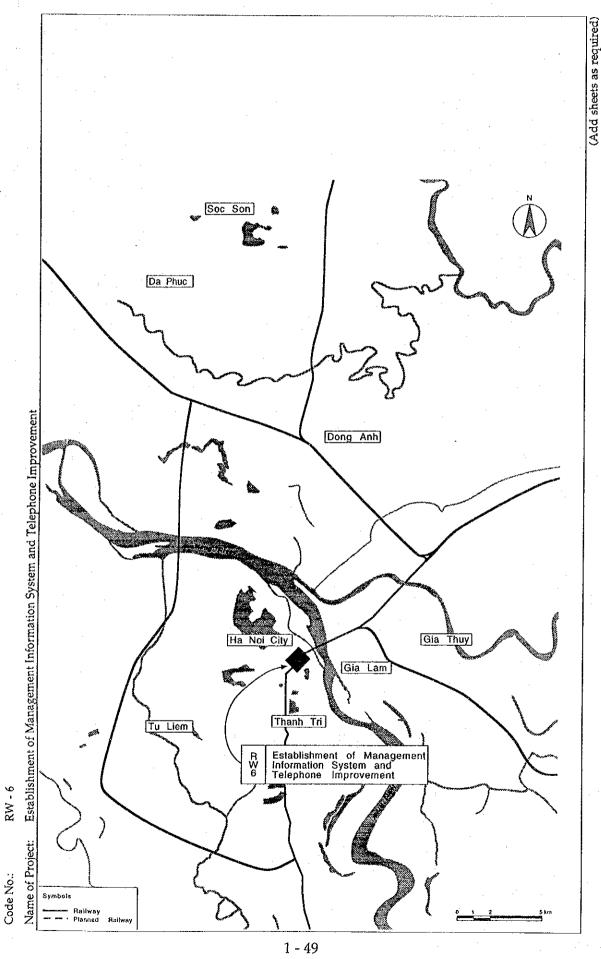
Code No.	Name of Project:		Mode:	Location:	:40			
RW - 5	International Transport by Railways		Railway	Dong	Dang-Ha	Dong Dang-Ha Noi, Hai Phong-Lao Cai	org-Zuo	ह
Development Body: VNR		Ministry in-charge: MOTC	Project Cost: ('000\$)	US\$ ('000\$)	Techni	Technical Assistance	9 <u>3</u>	T
Operation Body:		Section:	10,800 Dong) Foreign	64,200	ָּבָּה (כִּוּ	☑ reqid ☐ notreqid Financial Assistance	ot regid	
			Vietnam		Ċ	(2) 18 2 3 3 3 3 3 3 3 3 3 3	□ not rœg'd	
bnet of Project: (Exst. condition, L	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)		Major Development Components:	Specific Issues Remaining:	Remaining			Γ
Diplomatic negotiations to range Railway facilities for borde intergovernmental agreemen investment.	Diplomatic negotiations to reopen international transport between Vietnam Railway facilities for border connections have already been prepared. intergovernmental agreement which would have a favorable effect on rinvestment.	Diplomatic negotiations to reopen international transport between Vietnam and PR China are underway. Railway facilities for border connections have already been prepared. VNR currently expects an intergovernmental agreement which would have a favorable effect on railway transport demand and investment.	Hai Phong - Lao Cai: Improvement of existing locomotives Procurement of passenger cars Manufacturing of freight cars	One more passenger train through Dong lives Dang will be added after 2000. As for an environmental impact, please	passenger be added a environm	train thro fter 2000. ental imp	nugh Doi	8 8 8
International transport needs rolling stock to be used are ve for the project.	International transport needs many agreements, contracts and manuals, rolling stock to be used are very important negotiation items. VNR needs for the project.	manuals. Especially, tariffs, facilities and JR needs to have a reasonable plan and data	 Improvement of signaling Improvement of track and bridges Ha Noi - Dong Dang 	refer to chapter 2, Initial Environmental es Examination, Volume 3.	apter 2, I m, Volum	nitial Envi	ronment	E
Demand is not clear but it is a to Hai Phong, and several hur	Demand is not clear but it is assumed that this will include something less to Hai Phong, and several hundred thousand tons from Nanning to Ha Noi	thing less than 1 million tons from Kunming o Ha Noi.	- Procurement of passenger cars - Loading facilities at Dong Dang and Yen Vien stations	g and				
One passenger train a day w Beiging respectively. One mo	One passenger train a day will be operated from Ha Noi to Kunming, Beiging respectively. One more train to Nanning will be added after 2000.	nming, and from Gia Lam to Nanning and ter 2000.	- Kenovation of Gia Lam Station					
Financial internal rate of reth equivalent to D12E type are p existing idle locomotives are the	Financial internal rate of return (FIRR) of the proposed project is assequivalent to D12E type are purchased, thedeficit of VMR would be 28 existing idle locomotives are to be rehabilitated and used for the project	Financial internal rate of return (FIRR) of the proposed project is assumed to be 5%. If new locomotives equivalent to D12E type are purchased, thedeficit of VNR would be 28 million US\$ orver 30 years. Therefore, existing idle locomotives are to be rehabilitated and used for the project.						
Dong Dang corridor will be opened as soon as possible.	cened as soon as possible.	2,						
It is better to open Lao Cai co forecast by the inauguration o	It is better to open Lao Cai corridor after 1997, because it is not clear how r forecast by the inauguration of a new line between Kunming and Nanning.	It is better to open Lao Cai corridor after 1997, because it is not clear how much demand will be added to the forecast by the inauguration of a new line between Kunming and Nanning.						
Development: Serial Year	r 1st. Year (1995)	2nd. Year (1996) 3rd. Year (1997)	4th. Year (1998) 5th. Year (1999)	9) 6th. Year (_	7th Year (,	
Scriedule Calender Month Hems Serial Month	Month 3 6 9 12 3 nth	6 9 12 3 6 9 12 3	6 9 12 3 6 9	12 3 6 9	12	3		12
1. Feasibility Study								
2 Detailed Design/Bid Documents	82							1
3. Bidding/Negotiation								T
4. Procurement & Implementation								T**
					-			



Contribution Cont	Name of Project: International Transport by Railways	/ays								Unit: US\$1,000
Description Description Distriction		3	(3)	(4)	(2)	(9)	(2)		(8)	
Unit Cost Amount FCP 1.CP 1	Description				,				8%	Remarks
oCasi - Hail Plang loc 48 60 2,880 2,400 480 provement of DHH locomotives car 10 502 5,000 4,920 100 and and acture of freight wagons car 460 70 32,200 27,600 4,600 ack construction and maintenance machines LS 1 600 1,580 1,050 provement of bridges car 10 502 5,000 1,050 100 provement of bridges car 10 502 5,000 4,000 1,000 provement of bridges car 10 400 4,000 3,000 1,000 more bring Cantifices (Dong Dan and Yen Vien) unit 2 400 800 600 200 novation of Gia Lam station LS 1 80 6,00 2,000 4,90 contringency LS 1 1 80 6,00 2,00 contribution of Gia Lam station LS 1 1 4,00 4	The state of the s	Unit	Q'ty	Unit Cost	Amount	FCP	Ç,	ξŢ	Ç	
Provement of D-H locomotives Accordance	Lao Cai - Hai Phong									
Second Passenger care Car 10 502 5,020 4,920 100	Improvement of D4H locomotives	loco.	48	09	2,880	2,400	480	8	17	
anufacture of freight wagons car 460 770 32,200 27,600 4,600 provement of track km 300 7 2,100 1,050 1,050 1,050 provement of track LS 1 1 1,600 1,380 220 1,050 novement of bridges car 1 10 502 5,020 4,920 1,000 novation of freight wagons car 1 10 502 6,000 3,000 1,000 ading/unloading facilities (Dong Dan and Yen Vien) unit 2 400 4,000 5,000 1,000 novation of Gia Lam station Contingency Land Acquisition Cost Contingency Co	Procurement of passenger cars	car	10	502	5,020	4,920	100	88	7	
option/companies and maintenance machines LS 1 1,600 1,050 1,050 2,00 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,050 1,000 1,000 1,000 1,000 1,000 1,000 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 1,000 2,00 <th< td=""><td>Manufacture of freight wagons</td><td>car</td><td>460</td><td>70</td><td>32,200</td><td>27,600</td><td>4,600</td><td>88</td><td>4.</td><td></td></th<>	Manufacture of freight wagons	car	460	70	32,200	27,600	4,600	88	4.	
ack construction and maintenance machines LS 1 1,600 1,380 220 provement of bridges LS 1 600 500 100 nog Dang Liba Nogions car 10 502 5,020 4,920 100 courrent of passenger cars car 10 400 4,000 3,000 1,000 movation of feight wagons car 10 400 800 600 200 movation of Gia Lam station LS 1 80 60 200 Conflicted Construction Cost Land Acquisition Cost 5,480 5,000 4,000 Land Acquisition Cost 5,480 5,000 4,000 4,000 Land Acquisition Cost 4,400 4,000 4,000 Land Acquisition Cost 64,180 55,270 8,510	Improvement of track	kg 	300		2,100	1,050	1,050	50	50	·
provement of bridges 1.5 1.6 1.6 1.6 1.6 1.6 1.0 1.0 1.0	Track construction and maintenance machines	1.5	F-		1,600	1,380	220	8	4.	
Occurrement of passenger cars car 10 502 5,020 4,920 100 novation of freight wagons adding univoration of Gia Lam station car 100 400 4,000 3,000 1,000 novation of Gia Lam station LS 1 80 60 200 novation of Gia Lam station LS 1 80 400 80 Contingency Contingency 5,480 5,000 480 Petalled Design & Supervision CC x 7.3 %) 8,410 4,400 4,000 400 Land Acquisition Cost Cost Total Project Cost 64,180 55,370 8,810 Total Project Cost Cost (Trice of 1993) 100al 0,1993) 8,810	Improvement of bridges	rs	-		009	200	100	8	17	
10 502 5,020 4,920 100	Dong Dang - Ha Noj									
100 400 4,000 1,000	Procurement of passenger cars	car	0.5	502	5.020	4,920	100	86	2	
ading/unloading facilities (Dong Dan and Yen Vien) unit LS 1 400 800 600 200 novation of Gia Lam station LS 1 880 60 800 800 control contingency Contingency Contingency Contingency Land Acquisition Cost Land Acquisition Cost Total Project Cost Total Project Cost Total Direct Cost (Price of 1993)	Renovation of freight wagons	car	100	400	4 000	3,000	1 000	, K	25	•
Contingency	Loading / not not not facilities (Dang net not Not Vice)		٢	.000	000	,	000	: {		
Contingency	בייתייים לייתי ליתי לייתי	7	0	nns	999	7007	5	3		
Contingency 5,480 5,000 480 Total of Direct Construction Cost 5,000 480 Detailed Design & Supervision (C x 7.3 %) 8,410 Land Acquisition Cost 4,400 4,000 400 Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost 7 Total Direct Cost (Price of 1993) 7 Total Direct Cost (Price of 1993)	Renovation of Gia Lam station	รา	Γ'		80	0	08	0	100	
Contingency 5,480 5,000 480 Total of Direct Construction Cost 5,480 5,000 480 Detailed Design & Supervision (C x 7.3 %) 8,410 Land Acquisition Cost 4,400 4,000 400 Total Project Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993) 1993)								٠		
Contingency 5,480 5,000 480 Total of Direct Construction Cost 5,000 480 Detailed Design & Supervision (C x 7.3 %) 8,410 Land Acquisition Cost 4,400 4,000 400 Land Acquisition Cost 4,000 4,000 400 Total Project Cost 64,180 55,370 8,810 Total Project Cost 7 Total Direct Cost (Price of 1993)		:								
Contingency 5,480 5,000 480 Total of Direct Construction Cost 5,000 480 Detailed Design & Supervision (C x 7.3 %) 8,410 Land Acquisition Cost 4,400 4,000 400 Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost 64,180 55,370 8,810										-
Contingency S,480 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,400 4,000 400 Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)									-	
Contingency 5,480 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,400 4,000 400 Land Acquisition Cost Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)										
Contingency 5,480 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,400 4,000 400 Land Acquisition Cost Land Acquisition Cost 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)										
Contingency 5,480 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,000 400 Land Acquisition Cost 4,400 4,000 400 Total Project Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)					ē					
Contingency 5,480 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,000 4,00 4,00 Land Acquisition Cost Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)										
Contingency Contingency 5,000 480 Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,400 4,000 400 Land Acquisition Cost Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)										
Total of Direct Construction Cost Total of Direct Construction Cost 59,780 51,370 8,410 Detailed Design & Supervision (C x 7.3 %) 4,000 400 Land Acquisition Cost Cand Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)	Contingency				5,480	5,000	480	91	9	
Detailed Design & Supervision (C x 7.3 %) 4,400 4,000 400 Land Acquisition Cost Land Acquisition Cost Ed.,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)					29,780	51,370	8,410	%	14	
Land Acquisition Cost Land Acquisition Cost 64,180 55,370 8,810 Total Project Cost Total Direct Cost (Price of 1993)	Detailed Design & Supervision (C x 7.3				4,400	4,000	400	91	Q	
Total Project Cost 64,180 55,370 8,810 Total Direct Cost (Price of 1993)	- 1				·					
					64,180	55,370	8,810	8	14	
				Tota	Direct Cost (P	rice of 1993)		Exch	arioe rate	11155 = 10 800 Dong

(Project Profile) Short-Term Development

Code No	Name of Designation					2 X)			
	ivanite of Froject. Establishment of Management Information System and Telephone Improvement	mation System and Telepho	one Improvement	Railway	λί	Ha No	canon: Ha Noi		
		•	•	-			:		
Development Body: VNR		Ministry in-charge: MOTC		Project C	Project Cost: ('0005)	US\$ (1000s)	Technic	Fechnical Assistance:	
Operation Body:		Section:		10 800 E		009'6	ָלָגו גַלו	🖒 reqid 🔲 notreqid	ช
VNR				1000/01	Vietnam		Z regid	req'd □ not req'd	Φ.
Brief of Project: (Exst. condition, De	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	etc.)		Major Develop	Major Development Components:		Specific Issues Remaining:		
A computerized accounting system for profit/loss and creports, needs to be developed as an on-site computer improvements are necessary in order to integrate all data establishment of the MIS should be preceded by a review. Review and modernization of management system, rule survive in a market economy and contribute to national df. This is an item for improvement of basic funtion. Cost for Review and modernization of management will be imple Consequently, modern management systems and rules management systems using computers are necessary for m - Management and administration data bank; - MIS on finance; - Passenger marketing and ticketing information system; - Train operation diagram by computer; - MIS on train operations; - MIS on track maintenance; - MIS on track maintenance;	A computerized accounting system for profit/loss and cash flow accounts, as well as other business activity reports, needs to be developed as an on-site computer network. Computerization and telecommunication improvements are necessary in order to integrate all data into a Management Information System (MIS). The establishment of the MIS should be preceded by a review of current regulations and rules. Review and modernization of management system, rules, standards and manuals are essential in order to survive in a market economy and contribute to national development. This is an item for improvement of basic funtion. Cost for the project is small but its effect is large. Review and modernization of management will be implemented in this project first, before others proposed. Consequently, modern management systems and rules will be established by this project. The following management systems using computers are necessary for modernizing VNR's management: Management and administration data bank; Management and administration formation system; Cargo transport information system; Train operations; MIS on train operations; MIS on train operations; MIS on train operations; MIS on train operations: MIS on track maintenance;	w accounts, as well as oth k. Computerization and Management Information ant regulations and rules. dards and manuals are enent. elect is small but its effect i ject is small but its effect i in this project first, befo i established by this projecting VNR's management:	ccounts, as well as other business activity Computerization and telecommunication nagement Information System (MIS). The regulations and rules. ds and manuals are essential in order to tt. t is small but its effect is large. t this project first, before others proposed. stablished by this project. The following g VNR's management:		To establish a Management Information System Review of current rules and systems To establish computer network for MIS • Management and administration data bank; • MIS on finance; • Passenger marketing and ticketing information system; • Cargo transport information system; • Cargo transport information system; • Train operation diagram by computer; • MIS on train operatios; • MIS on train operatios; • MIS on rolling stock and workshops; • MIS on a master plan for telecommunication network Replacement of telecommunication equipment		As for an environmental refer to chapter 2, Initial Examination, Volume 3.	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	ntal
Development: Serial Year	1st. Year (1994)	2nd, Year (1995)	3rd. Year (1996)	4th. Year (1997)	97) 5th. Year (1998)	3) 6th. Year (1999)	(1999)	7th. Year (2000)	8
Calender Month Items Serial Month	40nth 3 6 9 12 3	6 9 12 3	6 9 12	9 6	12 3 6 9	12 3 6	9 12	6	12
1. Feasibility Study									
2 Detailed Design/Bid Documents									
3. Bidding/Negotiation									
4. Procurement & Implementation									
	The state of the s					1			1

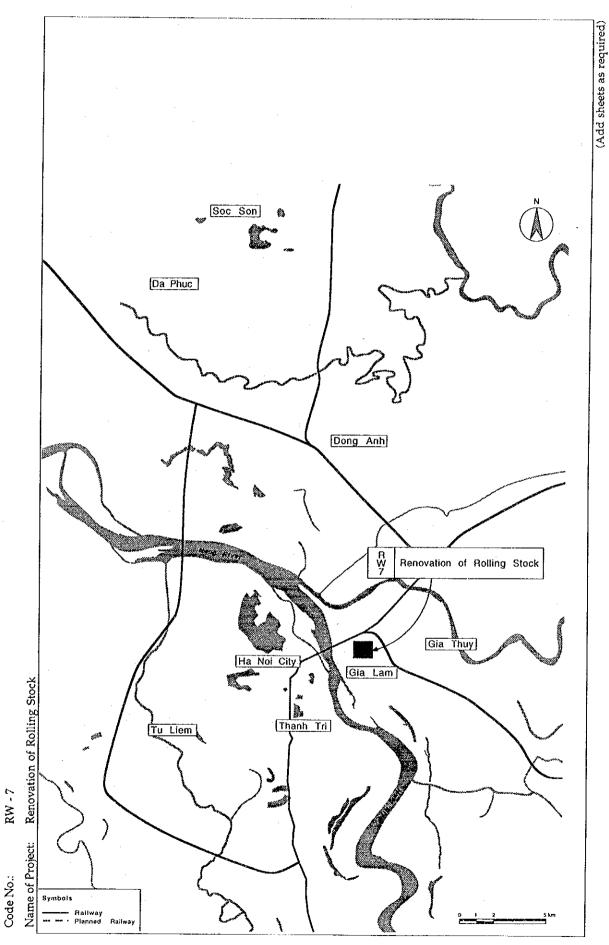


RW-	Estab
Code No.:	Name of Project:

		(2)	(3)	(4)	(2)	(9)	6	~ 	 6	
Description			ů.					····	%	Remarks
	ב	Unit	Q'ty	Unit Cost	Amount	FCP	E G	ξŢ	ij	
Consulting service for MIS		rs		5,000	5,000	4,600	400	92	∞	
Procurement of computer:	-									
Central devices		set	2	52	104	100	4	%	4,	
Terminal devices	<u>ب</u>	set	8	2.2	110	100	10	16	o,	
Improvement of telephone system		rs		3,800	3,800	3,500	300	35	∞	
		· · · · · · · · · · · · · · · · · · ·								
Contingency					400	340	8	88	15	
A. Total of Direct Construction Cost					9,414	8,640	77.4	92	80	
B. Detailed Design & Supervision ((C x 2.1 %)				200	150	20	75	25	
C. Land Acquisition Cost		-								
D. Total Project Cost					9.614	8 790	874	5	σ	

(Project Profile) Short-Term Development

Code No.	Name of Project:						Mode:							Location:	<u>ا</u>				
RW-7	Renovation of Rolling Stock						Railway	ray.						Ha Noi					
Development Body: VNR		Ministry in-charge: MOTC					Project	Project Cost: ('000\$)	(\$00)				USS (1000S)	S)	Ted	unical A	Technical Assistance	Į į	
Operation Body:		Section:					10,800 Dong)	Yong)		Total Foreign	Total Foreign		26,500		D E] req'd incial A	Treq'd not req'd Financial Assistance:	t req'd	
ŀ										Ş	Vietnam		4,000		ΙŻΙ	P,baz	not req'd	treq'd	
Brief of Project: (Exst. condition, Dev. F.	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)	male etc.)				Major	Major Development Components:	pment (Compon	ents:		<u> </u>	pecific	Specific Issues Remaining:	emaini	:8:			
Locomotives, passenger cars and freight cars are essential marketing tools, and are necessary for basic function of railways.	reight cars are essential mar	rketing tools, and are	necessary	for basic	functio		- Improvement of D4H locomotives - Renovation of passenger cars	ement tion of	of D4H passen	locome ger can	otives		This 1	This project should be combined with Gia Lam workshop improvement.	should top im	d be co prover	mbinec nent.	with	ë
VNR has 247 D4H locomotives and they should be used for 15 more years with minor rehabilitation and improvement.	nd they should be used fo	or 15 more years wi	th minor r	eha bilita	tion an	1 1	Kenovation of freight wagons Design of renovation	ition of of reno	freight vation	мавом	w		As fo refer	As for an environmental impact, please refer to chapter 2, Initial Environmental	nviror pter 2	nmenta , Initia	il impa I Envii	ct, ple	sase ntal
Capacity of locomotives is low and passenger cars are so deteriorated that passengers hesitate to us Funds for improving them are necessary, starting with the Gia Lam workshop improvement project.	d passenger cars are so dete essary, starting with the Gia	riorated that passeng 1 Lam workshop imp	passengers hesitate to use railways.	e to use roject.	railways								Exam Exam	Examination, Volume 3.	ı, Volu	ime 3.			
Coupling two D4H locomotives into a single locomotive with multiple-unit control equipment. Running parts of the D4H will be replaced in order to upgrade its maximum speed from the current 50 km/h to 70 km/h.	to a single locomotive with er to upgrade its maximum	multiple-unit contro speed from the curre	t control equipment. Running page current 50 km/h.	it. Kunn i to 70 kr	ing part n/h.	y y													
Passenger cars need to be in reasonable condition in order to attract more passengers. Renovation of express passenger cars should be urgently implemented; current floor frames, bogies and couplers could be further used. The existing freight cars shall be modified to meet changing demand, since the type of transported commodities is likely to change.	mable condition in order to / implemented; current flo hall be modified to meer c	o attract more passen, vor frames, bogies an changing demand, sii	passengers. Renovation of express gies and couplers could be further and, since the type of transported	vation o could b e of tra	f expres e furthe nsporte	» » но													
										·									
Development: Serial Year	1st. Year (1996)	2nd. Year (1997)	3rd	3rd. Year (1998)	(96)	4th.	4th. Year (1999)	(666	_	5th. Year (2000)	(2000)	-	eth.)	6th. Year (2001)	E		7th. Year (2002)	(2002)	
Calender Month ltems Serial Month	3 6 9 12	3 6 9 12	m	9	22	m	6 9	12	8	9	6	12	φ 	٠,٥٠	12	m	9	6	12
1. Feasibility Study																			
2 Detailed Design/Bid Documents																			
3. Bidding/Negotiation																			
4. Procurement & Implementation							\parallel					H							
					1	7	-	-				+	4		_	_			٦

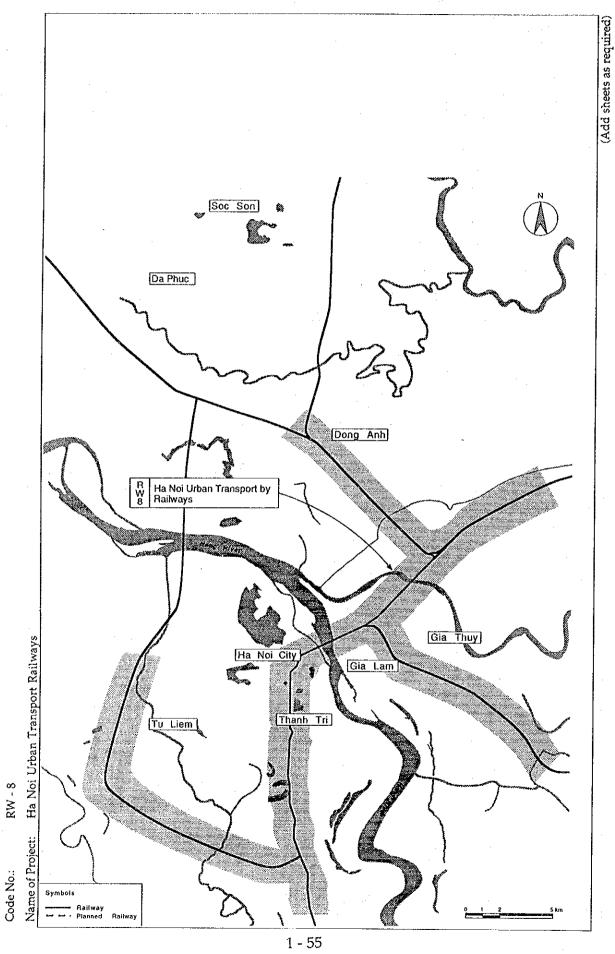


RW - 7	Renovatio
Code No.:	Name of Project:

Name of Project: Renovation of Rolling Stock									T1mit. TTC61 000
	(2)	(3)	(4)	(5)	(9)	(2)	(8)		O31,000
Description							%	0	Remarks
	Unit	Q'ty	Unit Cost	Amount	FCP	D ₁	ξĴ	LCP	
Improvement of D4H locomotives	loco	30	9	1,800	1,500	300	83	17	
Renovation of passenger cars	car	09	220	13,200	12,000	1,200	55	O,	
Renovation of freight wagons	car	200	40	8,000	6,000	2,000	К	25	
			-		:				
					• • • • • • • • • • • • • • • • • • • •				
			•						
1						:			
									,
								**	
		•							
Contingency				2,300	2,000	300	\$	<u>"</u>	
A. Total of Direct Construction Cost				25,300	21,500	3,800	28	15	
B. Detailed Design & Supervision (C x 4.5 %)				1,150	1,000	150	28	13	
C. Land Acquisition Cost				1.					
D. Total Project Cost				26,450	22,500	3,950	83	15	
			Total	Total Direct Cost (Price of 1993)	ice of 1993)		Excha	ınge rate	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

Code No.	Name of Project:		Mode.					
RW-8	Ha Noi Urban Transport by Railways		Railway		Ha Noi	. id		
Development Body: VNR	Ministry	stry in-charge: MOTC	Project Cost: ('000\$)	(\$000.)	USS (1000S)	Technic	Technical Assistance	
Operation Body:	Section	Ţ.	3	I.	13,000	Ŋ	🛭 req'd 🗌 notreq'd	ō
VNR			10,800 Dong)	Foreign	9,400	Financi	Financial Assistance:	
- 1				Vietnam	3,600	Z	ag'd 🔲 not reg'd	œ.
brief of Froject: (Exst. condition, 1	(EXSt. condition, Dev. framework, beneficiaries, Kationale etc.)		Major Development Components:	t Components:	Specific Issues Remaining:	Remaining:		
Rapid urbanization and mig transport in the Ha Noi urba some improvement costs mo facilities, rolling stock and m jobs for idled employees.	Rapid urbanization and migration are forecast for Ha Noi. There is already a demand for public mass transport in the Ha Noi urban area. It is dear that VNR should play a role in commuter transport. Though some improvement costs must be incurred, it is possible at present to transport commuter using existing facilities, rolling stock and man power. This project should be implemented quickly in order to create new jobs for idled employees.	is already a demand for public mass a role in commuter transport. Though to transport commuter using existing mented quickly in order to create new		Improvement of D4H Improvement of passenger cars Improvement of stations: Ha Noi-Do Xa, Ha Noi-Bac Ninh, Ha Noi-Lac Dao, Ha Noi-Bac Hong	As for an environmental refer to chapter 2, Initial Examination, Volume 3.	rvironmen oter 2, Init n, Volume	As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	ase ntai
As feeder services are not a transport commuters with the car's floor level is necessary in hours. Since speed restriction urgent inspection and repair	As feeder services are not available now, railways instead ought to prepare passenger and freight cars to transport commuters with their bicycles and motorbikes. Raising the level of platforms to the height of the car's floor level is necessary in order to do this. Long distance trains should not arrive nor leave during peak hours. Since speed restriction on Long Bien bridge is a bottle neck for frequent commuter train operation, an urgent inspection and repair will be executed by experts from abroad.	prepare passenger and freight cars to level of platforms to the height of the tould not arrive nor leave during peak frequent commuter train operation, an	·	(20 stations) To equip level crossings alarms				
Development: Serial Year	1st. Year (1994)	2nd. Year (1995) 3rd. Year (1996)	4th Year (1997)	5th. Year (1998)	6th. Year (1999)	<u>8</u>	7th. Year (2000)	T _ĝ
Calender Month Items Serial Month	Month 3 6 9 12 3 6	9 12 3 6 9 12 3	3 6 9 12	8	12 3 6 9	12	3 6 9	12
1. Feasibility Study								
2 Detailed Design/Bid Documents	29							
3. Bidding/Negotiation								
4. Procurement & Implementation								
		1						_

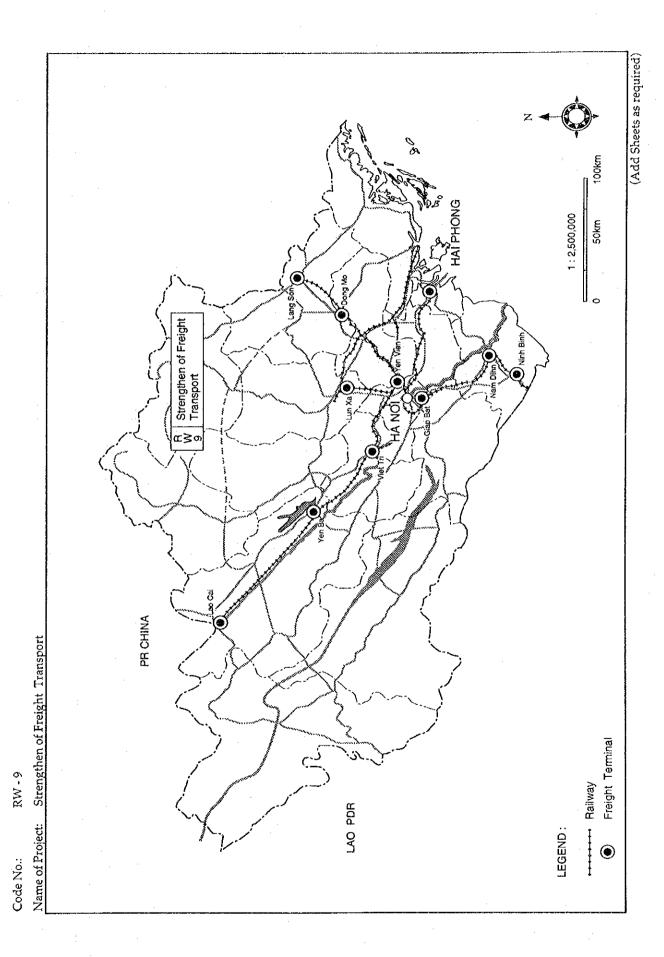


RW - 8	
Code No.:	

Code No.: RW - 8 Name of Project: Ha Noi Urban Transport by Railways	wavs								000 F2ST 41mT
	(2)	(3)	(4)	(5)	(9)	(5)	(8)		20071000
Description							%	:	Remarks
	Unit	Q'ty	Unit Cost	Amount	FC	LG G	5	Ĉj.	
Improvement of D4H locomotives	loco	8	55	440	400	40	16	6	
Improvement of passenger cars	Car	32	110	3,520	3,200	320	26	σ,	
Improvement of wagons to transport bicycles	car	16	55	880	800	80	16	σv	
Improvement of stations	sta.	20	200	4,000	2,000	2,000	ß	20	
Improvement of automatic signal between Ha Noi and	unit	F.	350	320	300	20	8	4.	
Gia Lam									
Level crossing alarm equipment	set	20	75	1,500	006	009	8	40	
									-
									
									a announce de
			:						
Contingency				1,100	800	300	2	27	
A. Total of Direct Construction Cost				11,790	8,400	3,390	71	59	
B. Detailed Design & Supervision (C x 10.2 %)				1,200	1,000	200	83	17	
C. Land Acquisition Cost			,						
D. Total Project Cost				12,990	9,400	3,590	22	28	
			Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Excha	nge rate	Exchange rate: 1USS = 10,800 Dong

(Project Profile) Short-Term Development

Code No.	Name of Project:		Maria			
RW-9	Strengthen of Freight Transport		Railway	Ha Noi	. č	
Development Body:	Ministry	stry in-charge:	Project Cost: (000\$)	(3000) \$S()	Technical Assistance	
Operation Body:	Section	. Ho			🔽 req'd 🗌 notreq'd	-rel
			10,800 Dong) Foreign	16,000	Financial Assistance:	
Brief of Project: (Exst. condition, I	(Exst. condition, Dev. Framework, Beneficiaries, Rationale etc.)		Major Development Components:	- S	emaining:	3
Since bulk cargo is the main	Since bulk cargo is the main and most profitable business, improvement	ent of railway services for customers is	- Loading/unloading facilities at main	•	As for an environmental impact,	bulk
resential to secure bulk cargo freight train operation, cars fi	essendat to secure bulk cargo for rail at present and in the future. These services include fixed and punctual freight train operation, cars fitted for bulk commodities, unloading facilities that reduce cost, and storehouses.	ese services include fixed and punctual littles that reduce cost, and storehouses.	stations Giap Bat. Yen Vien, Dong Mo. Hai		rds are separated	from
VNR should assist cement, co	VNR should assist cement, coal and oil companies to install unloading, stock and delivery facilities in station yards. Freight operation stations with small lots of cargo should be closed. On the other hand, the remaining	s, stock and delivery facilities in station sed. On the other hand, the remaining	Phong, Viet Tri, Yen Bai, Lao Cai, Nam Dinh, Nin Binh, Luu Xa;			
stations should be equipped v	stations should be equipped with loading and unloading facilities.		(10)	(10 stations)		
			 Centent terminals Giap Bat, Yen Vien, Lang Son, Viet Tri, Yen Bai, Nam Dinh, Luu Xa; 	Viet (a:		
				(7 stations)		
			ren vien, ren 6a; (2 s - Oil terminals	(2 stations)		
			en Bai, Lang S	ao Cai,		
			Luu Aa; (5 s	(5 stations)		
					·	
Development: Serial Year	r 1st. Year (1996) 2nd. Year	Year (1997) 3rd. Year (1998)	4th. Year (1999) 5th. Year (2000)	x0) 6th. Year () 7th. Year (_
Calender Month Items Serial Month	Month 3 6 9 12 3 6	9 12 3 6 9 12 3	6 9 12 3 6 9	12 3 6 9	12 3 6 9	12
,						
- 1						
2 Detailed Design/Bid Documents	\$					
3. Bidding/Negotiation						
4. Procurement & Implementation						



Name of Project: Strenghtening of Freight Transport	insport								
Description	(2)	(3)	(4)	(5)	(9)	(2)		(8)	
777 000 000 000 000 000 000 000 000 000	Unit	Q'ty	Unit Cost	Amount	FCP	ģ	₽ P	ថ្ម	
Loading/unloading facilities	set	10	006	000'6	6,000	3,000	67	33	
Cement terminal	place	7	006	6,300	3,500	2,800	% 	4	
Coal terminal	place		650	1,300	200	009	1 2	46	
Oil terminal	place	ις.	800	4,000	2,500	1,500	ß	37	
					-				
					-				
ane (day)									
								,	<u></u>
Contingency						;			
A. Total of Direct Construction Cost				22 700	14.000	800	29 5	88 8	
B. Detailed Design & Supervision (C x 9.7 %)	7 %)			0000	2 000	000	5 5	8 0	
					2,000	007	12	n	
D. Total Project Cost				24 900	15,000	000 0	;	,	
				006,42	10,000	9,900	2	36	

Unit: USS1,000

RW - 9

Code No.:

Remarks

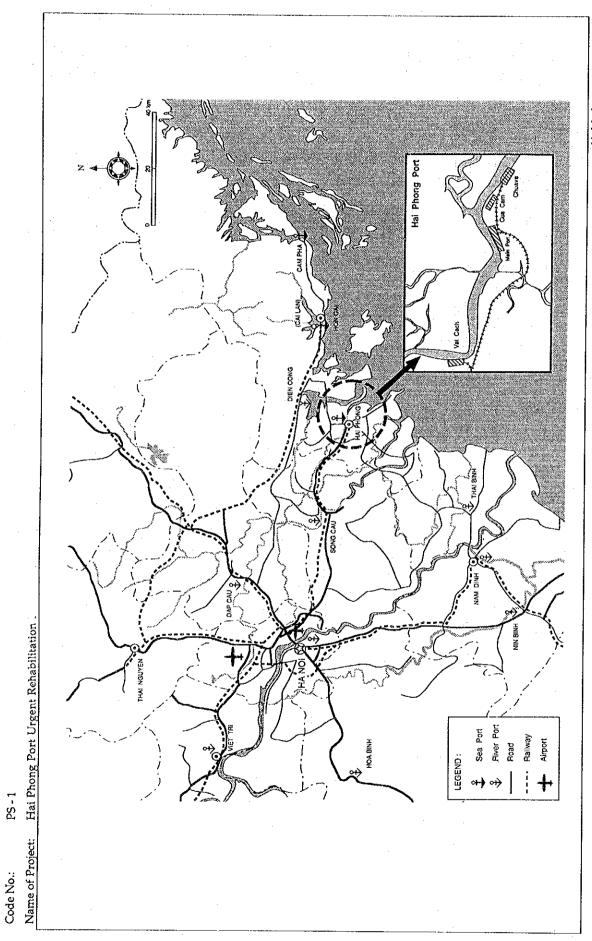
Exchange rate: 1US\$ = 10,800 Dong

Total Direct Cost (Price of 1993)

PORTPROJECTS

(Project Profile) Short-Term Development

: 0					ļ				l				ŀ	ŀ	l				ſ
PS-1	Name or rroject: Hai Phong Port Urgent Rehabilitation	Hon			٠.	ž –	Mode: Port and	ode: Port and Sea Transport	ansport				₫	Location: Hai Phong	Suc				
Development Body: VINAMAR	VINAMARINE, MOTC	Ministry in-charge: Ministry of Transport and Communications	Transport and	Commi	unication	 	oject Co	Project Cost: ('000\$)	<u></u>		H	CSS	US\$ ('000\$)	\prod	Techa	ical As	Technical Assistance		T
		Continue					3			Total	-	14	145,200			reg'd	🗌 req'd 🔲 not req'd	S S	
Optianon body.		Section.				6	10,800 Dong)	(<u>2</u> 2		Foreign	E	21,0	108,551	T	Finan	say ler	Financial Assistance:	;	******
- 1						-				Viemam	E	~	36,649	-]	8	not req'd	- G	1
Brief of Project: (Exst. condition,	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	al etc.)				Major Development Components:	evelopa	Ö H	nponer	:\$ <u>;</u>	٠.	Ŗ.	Specific Issues Remaining:	ues Rer	nainin	i.h			
Hai Phong Port plays an import Vietnam. In spite of the constantly (2.4 million ton in a fully loaded condition.	Hai Phong Port plays an important role as the only international sea-transportation base in the northern part of Vietnam. In spite of the importance of Hai Phong Port, the cargo throughput has been decreasing constantly (2.4 million ton in 1992), and large-size vessels more than $6 \sim 7$ thousand D/W can't enter the Port in a fully loaded condition.	nal sea-transportation t, the cargo throughp e than 6 ~ 7 thousand	ortation base in the northern part throughput has been decreasing housand D/W can't enter the Port	northeri n decre enter the	n part asing e Port	ry ya.	edging rd expi rth imp	dredging of the entrar yard expansion, yard berth improvement building construction	entran yard ii ent iction	dredging of the entrance channel yard expansion, yard improvement berth improvement building construction	nel ment		Survey (study) entrance channel depth is required.	(stud e cha s requi	(study) for channel wi required.	r ope with	study) for opening a channel with deeper equired.	a new r water	₹ #:
The reasons for this situation of a low level of port act - the limited previous development of the economic - the shallowness of the entrance channel of the Port	The reasons for this situation of a low level of port activities are; - the limited previous development of the economic and industrial activities - the shallowness of the entrance channel of the Port	», trial activities of Vietnam	Ę			, , bo	equipment boats (dred	equipment boats (dredger, etc.)	etc.)				As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	an env chapt ation,	/ironn er 2, I Volun	ental nitial I re 3.	mpact inviror	pleas	8 7
In accordance with the cur transportation is expected to should be 5 million tons (inc.)	In accordance with the current take-off of economic and industrial development, the international cargo transportation is expected to sharply increase. It is estimated that the cargo throughput of Hai Phong Port should be 5 million tons (including 1.5 million tons of containers) in the year 2000.	idustrial development 4 that the cargo throug rs) in the year 2000.	, the interna ghput of Ha	ational i Phong	cargo ; Port														of the Park and the said Wiles Committee
In order to cope with this si efficiency of cargo handling handling facilities.	In order to cope with this situation it is urgently required for Hai Phong Port to improve its capacity and its efficiency of cargo handling, especially dredging of the entrance channel and improvement of the container handling facilities.	Hai Phong Port to imprence channel and impre	prove its cal	pacity a the con	nd its				•										E- E- (
The feasibility study was cor	The feasibility study was completed and the loan agreement has been made with OECF.	is been made with OEC	Ħ.																
me establishment																			
												· · ·							********
Development: Serial Year	ear 1st. Year (1994)	2nd. Year (1995)	3rd. Year (1996)	ц (1996)		4th. Ye	4th. Year (1997)	2	5t)	5th. Year (1998)	(866		6th. Ye	6th. Year (1999)		7.	7th Year (2000)	3000	
ms .	Calender Month 3 6 9 12 Serial Month 3 6 9 12	3 6 9 12	3 6	6	12 3	9	9	12	67)	6 9	12	3	9	6	12	60	vo	9	12
1. Feasibility Study																			
2. Detailed Design/Bid Documents	nts																		
3. Bidding/Negotiation																			
4. Procurement & Implementation	Е.			_	-	-	1				\perp	1							
											-				1			$\frac{1}{1}$	7



PS-1
Code No.:

Name of Project: Hai Phong Port Urgent Rehabilitation	oilitation								Unit: US\$1,000
	(2)	(3)	(4)	(5)	(9)	(2)	**	(8)	
Description							6	89	Remarks
	Unit	Q'ty	Unit Cost	Amount	FCP	Đ ₁	Ę.	c D I	
Initial Dredging for channel -6.0 m									
- Basin area	ĨŁ	1,110,000	0.007	7,770	5,439	2,331	2	30	
- Cua cam area	£	000'006	0.044	3,600	2,520	1,080	8	93	
- Back dang area	E .	2,490,000	0.0058	14,442	10,109	4,333	2	ક્ષ	
- Nam trier area	É	6,440,000	0.004	25,760	18,032	7,728	8	93	
- Dikes 6 nos.	S	1		3,300	1,980	1,320	8	4	
Hopper suction dredger (capacity 3,000)	SoN			15,000	15,000	0	100	0	
(Cuave)				:					
Construction					0	. 0			
- Yard expansion	117	52,000	0.04	2,080	1,248	832	8	04	
- Yard improvement	H,	25,000	0.02	200	300	200	8	40	
- Reinforcement of berth	ε	99	50	3,300	1,980	1,320	8	40	
- Construction of 2 CFS building	m ²	2,000	0.4	800	560	240	8	33	
Procurement of equipment									•
- Container handling equipment	s;			15,050	12,040	3,010	80	20	
(Main Port)									
Construction					0	0			,
- Warehouse demolish	S.	-		400	240	160	8	40	
- Office construction	m²	800	0.75	009	420	180	8	8	
- Yard pavement	m²	26,000	0.02	1,520	912	809	8	40	
- Electric power supply	is	T	1,700	1,700	1,360	340	8	20	
- Light	Nos	4	313	1,252	1,002	250	8	50	
- Reefer	Nos	20	4,	8	49	16	8	20	
Procurement of equipment					0	0			
- Container handling equipment	ls			11,050	8,840	2,210	8	23	******
- Conventional cargo handling equipment	ls			7,477	5,982	1,495	80	20	
			Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Excha	nge rate	Exchange rate: 1US\$ = 10,800 Dong

Dong	
10,800	
1US\$ =	
Exchange rate:	

Total Direct Cost (Price of 1993)

Description	(3)	(*)	(4)				:	-		ſ
Description	-	(3)		(2)	9)	3	<u> </u>			
							%		Remarks	
Others	Unit	Q'ty	Unit Cost	Amount	FCP	LCP	FCP	ģ		
										Π
- Computer network, technical training, survey				4,319	3,455	864	8	28		
system, etc.	···			*						
Sub-total				120,000	91,483	28,517				
Contingency	%	0		12,000	9,148	2,852				
Procurement of equipment		÷								
(Cuave)										
Container handling equipment										
- Transfer crane 35 - 40 t	Nos	ن	1,700	8,500						
	Nos	10	08	300						
	Nos	10	8	006						
-35 t	Nos	2	300	009						
- CFS chassis	Nos	9	30	180						
- Forklift 2-3t	Nos	ഗ	*	170						
- Reach stacker	Nos		400	400				•		
- Tugboat	Nos	2	2,000	4,000						•
Sub-total	·			15,050						
(Main Port)				·						
Container handling equipment										
- Transfer crane 35 - 40 t	Nos	ഗ	1,700	5,800						
- Chassis	Nos	10	99	300						
- Tractor	Nos	10	8	006						
- Toplifter 25 - 35 t	Nos	24	300	009						
	Nos	9	8	180						
	Nos	ιΩ	35	170						
- Reach Stacker	Nos	ч	400	400						
Sub-total				11,050						

PS-1

Code No.:

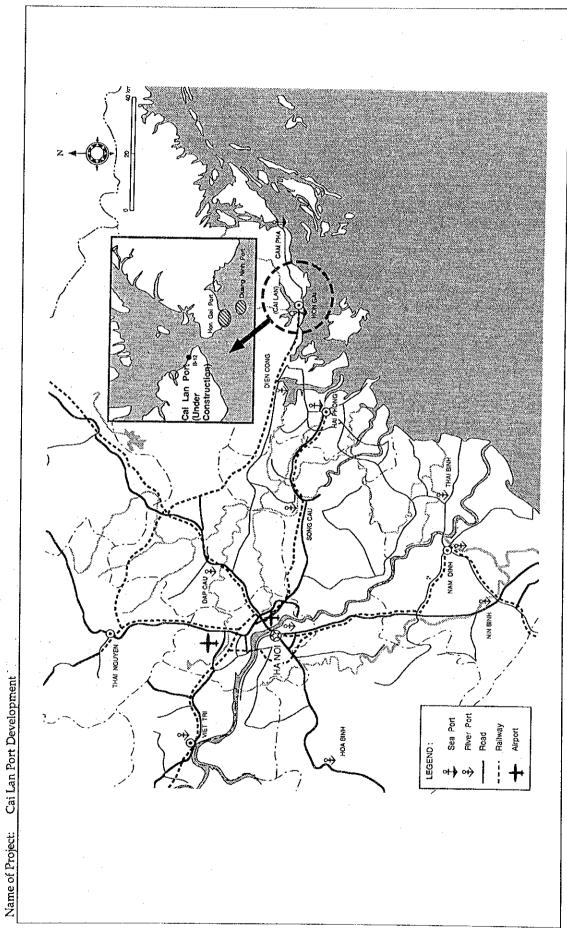
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Total Direct Cost (Price of 1993)

Conventional cargo handling equipment Truck Truck Chassis Forklift 2 - 10 t Bulldozer Pallets Sub-total	(3) Q ty 35 20 26 8 8	(4) Unit Cost 93 110 70 42 60 150	(5) Amount 3,255 1,100 1,400 1,092 480 150 7,477	(6) FCP	CO CO	# PCP	Remarks	rks
Nos Nos Nos Nos Nos Nos Nos Nos Nos Nos	25 02 05 8 1	Unit Cost 93 110 70 42 60 150	Amount 3,255 1,100 1,400 1,092 480 150 7,477	Ð	רט	8		స్ట
Nos Nos Nos Nos	55 0 0 8 8 1	Unit Cost 110 70 42 60 150	Amount 3,255 1,100 1,400 1,092 480 150 7,477	ភ្ជិ	Ç.			
	20 75 20 10 35 1 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	93 110 70 42 60 150	3,255 1,100 1,400 1,092 480 150 7,477					
Truck Tractor head Chassis Forklift 2 - 10 t Bulldozer Pallets Sub-total	1 8 8 7 20 20 20 20 20 20 20 20 20 20 20 20 20	93 70 70 80 150	3,255 1,100 1,400 1,092 480 150					
- Tractor head - Chassis - Forklift 2 - 10 t - Bulldozer - Pallets Sub-total	1 8 8 7 0	110 70 42 60 150	1,100 1,400 1,092 480 150 7,477			· · · · · · · · · · · · · · · · · · ·		
Chassis Forklift 2 - 10 t Bulldozer Pallets Sub-total	1 8 8 .	5 2 3 9 150	1,400 1,092 480 150 7,477					
- Forklift 2 - 10 t - Bulldozer - Pallets Sub-total	, 8 & F	42 60 150	1,092 480 150 7,477		<u> </u>			
Bulldozer Pallets Sub-total	∞ ⊷	150	480 150 7,477		·			
Pallets Sub-total	-	150	150		<u> </u>		-	
Sub-total			7,477					·
					_	-		
					·			
			-			-	• .	
		-						
							:	
					-			
								
A. Total of Direct Construction Cost %	10		132,000	100,631	31,369			
B. Detailed Design & Supervision (C x %) %	10		13,200	7,920	5,280	89		
C. Land Acquisition Cost								
D. Total Project Cost			145 200	108 551	36 640			

(Project Profile) Short-Term Development

Code No.	Name of Project:				ľ	Manage											
PS-3	Cai Lan Port Development					Port at	oue: Port and Sea Transport	nsport		:		Cai La	cation: Cai Lan				
Development Body:		Ministry in-charge				Project	900U) -+a0						-				
VINAMARINE	<u> </u>	Ministry	Ministry of Transport and Communications	ommunicat		1 US\$=	(1 US\$=			1	CSS (000\$)	8	r T	chnical	Technical Assistance	Ņ.	
Operation Body: VINAMARINE	. ш	Section:	•			10,800 Dong)	ong)		Total Foreign		113,996	4 %			☐ req'd ☐ not req'd ☐ Enancial Assistance	t regid	
							١.		Vietnam	_	52,198	88	; —	Ĭ	☐ req'd ☐ not req'd	treg'à	
bnet of Project: (Exst. condition, D.	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	etc.)			_	Develop	Major Development Components:	ponents	.,		Speci	Specific Issues Remaining:	Remai	ning:			1
In accordance with the econon expected to be sharply increased.	In accordance with the economic and industrial development of Vietnam, international cargo transportation is expected to be sharply increased. It is estimated that total cargo throughout (canada) cargo) change to a	Vietnam, internation	nal cargo trans	portation is		erth con	berth construction (berths of -9m)	ı (berth	, of -9m	_	Yu.	An in-depth study on	oth str	ıdy or	· w	environmental	ä
million tons in 2000 and 15.2 million tons in 2010.	tillion tons in 2010.	ass) indiranomin os	ierai cargo) sni	ould be 5.5		ard con: uilding	yard construction building construction	tion			sho	influence of should: be c	e of Gran	the port	out deve	development before any	nent
It is impossible to accept this proposed improvement. Espec	It is impossible to accept this total volume of cargo throughput only via Hai Phong Port, even after its proposed improvement. Especially the larger sized ships can't enter Hai Phong Port.	put only via Hai I nter Hai Phong Port	hong Port, ev	en after its	1 1	equipment dredging (e	equipment dredging (entrance channel, anchorage, himing basin, etc.)	ce cham	nel, anch	orage,		ision is	taken	on cons	decision is taken on constructing it have.	git hav	. oj :
to cids define once of actor of) - - - :			•	ad and	road and railway connection	connect	ion			ar to ch	apter 2	uneana 2, Initia	refer to chapter 2, Initial Environmental	n, pres	, .e.
in order to cope with this sit transportation, a new port wor in the year 2000 and 6.3 million named in the project title becar problems and loss of tourist in	In order to cope with this situation, especially to accept the larger-sized ships now used in international transportation, a new port would be developed. The cargo throughput of the Port is estimates as 1 million ton in the year 2000 and 6.3 million ton (including 0.6 million ton of container) in the year 2010. Note: Cai Lan is named in the project title because that is one possible site, but there are potentially substantial environmental problems and loss of tourist incomes which may indicate another choice.	larger-sized ships raghput of the Port is container) in the yeare are potentially thoice.	iow used in in estimates as 1 ar 2010. Note: substantial env	ternational million ton Cai Lan is ironmental							<u> </u>	Examination, Volume 3.	on, Vol	ume 3.	·		
Cai Lan or whatever other portibe influence on the natural en	Cai Lan or whatever other port site may be chosen, should be developed step by step while checking carefully the influence on the natural environment and the dredging condition of the sea bottom.	veloped step by step vition of the sea bottom	p while checkir m.	g carefully													
The feasibility study is being undertaken by JICA.	ndertaken by JICA.				·												
							٠										
														•			
Development: Serial Year	1st. Year (1994)	2nd. Year (1995)	3rd, Year (1996)	(966)	4th	4th. Year (1997)	6	Sth.	5th. Year (1998)	8	eth	6th. Year (1999)	- - - - - - - - - - - - - - - - - - -		7th. Year (7000)	0000	
Calender Month Items Serial Month	donth 3 6 9 12 3	6 9 12	9	9 12	8	6	12	3	6	12	m	6 9	12	<u>ω</u>	9	6	12
1. Feasibility Study						-		<u> </u>			-	-	1	-		-	
2 Detailed Design/Bid Documents									<u> </u>		-		-	-		-	T
3. Bidding/Negotiation													-			-	T
4. Procurement & Implementation					ļ	-		$\ \ $				+	+				
				-		-	-		_		-	+	+			7	7



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PS-3

									OUNTER COST TIMO
	(2)	(3)	(4)	(5)	(9)	(2)	**	(8)	
Description							6	%	Remarks
	Unit	Q'ty	Unit Cost	Amount	FCP	D ₁	Ę,	Çj	
Construction of berth (-9.0 m)	E	495	40	19,800	11,880	7,920	8	8	
Construction of Yard (825 x 200 = 165,000 m²)									
- Reclamation ((165,000 - 60,000) x 5 = 525,000 m ²))	ji.	525,000	0.005	2,625	1,838	787	8	8	
- Pavement for yard	Tag.	165,000	0.04	6,600	3,960	2,640	53	8	
Construction of building					<u>.</u>				
- Port office	il.	800	0.75	009	420	180	8	99	
- Shed (12,600 m²)	TJ.	12,600	0.4	5,040	3,528	1,512	8	<u>8</u>	
Procurement of conventional handling equipment									
- Truck	Nos	18	93	1,674	1,339	335	8	20	
- Tractor head	SoN	ß	110	550	440	110	8	8	
- Chassis	Nos	10	8	700	260	140	8	20	
- 10 t	Nos	. 13	45	546	437	109	8	20	
Z - Bulldozer	so _N	4	09	240	192	48	8	20	
- Pallets	Nos	ę.u	150	150	120	30	8	20	
Dredging							-,		
- Navigation channel (-7 m, breadth 150 m)	Ē	5,625,000	0.004	22,500	15,750	6,750	8	99	
- Anchorage and turning basin (-7 m)	ቼ	10,265,000	0.005	51,325	35,928	15,397	8	8	
Navigation aid	<u>.</u>								
- Buoy in channel	Nos	16	1,000	16,000	12,800	3,200	8	20	
- Light house	Nos	p-q		4,000	3,200	800	88	70	
Removing and reconstruction of B-12 oil terminal	Is	1		5,000	3,000	2,000	8	4	
Sub-total				137,350	95,392	41,958			
Contingency	80	10		13,735	6,539	4,196		:	
A. Total of Direct Construction Cost				151,085	104,931	46,154			
B. Detailed Design & Supervision (Cx %)	8%	10		15,109	9,065	6,044	059	40	
C. Land Acquisition Cost									
D. Total Project Cost				166,194	113,996	52,198			

Exchange rate: 1US\$ = 10,800 Dong

Total Direct Cost (Price of 1993)

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INLAND WATERWAYPROJECTS	1,1
는 사이트로 보고 있는 경험을 통해 되는 것이 되었습니다. 그런 사이에 보고 있는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. - 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 사 - 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다. 그는 것이 되었습니다.	
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- 보급이 되었다면서 보고 있다면 하는데 하는데 보다 한다는데 보다 하는데 보고 하는데 보고 되었다. - 사람들은 보다 사람들이 이번 사람들이 되었다면 하는데 하는데 하는데 하는데 하는데 되었다.	

(Project Profile) Short-Term Development

Code No.	Name of Project:				Mode					Tocation:	[i			
	Ninh Binh Port Rehabilitation and Extension	Extension			relui	Inland Waterway	ray			Nais.	ı. Birih ()	Vinh Bin	Ninh Binh (Ninh Binh Province)	Ŕ
Development Body: Inland Waterway Bureau (IWB)	y Bureau (IWB)	Ministry in-charge: Ministry of T	in-charge. Ministry of Transport and Communications	munications		Project Cost: ('000\$	88		CS& (000S)	(SOC	Ted	unical As	Technical Assistance	
Operation Body		Section	•				Total	12	17,625	ς,	∪	req'd	🗌 req'd 📋 not req'd	g'd
IWB					10,800 Dong)	Dong)	For	Foreign	11,327	7	Fina	ncial As	Financial Assistance:	
- 1							Vie	Vienam	6,298	8		□ req'd	not reg'd	eć,g
Brief of Project: (Exst. condition, Dev.	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	l etc.)		<u>~</u>	Major Development Components:	opment C	imponents:		Specifi	Specific Issues Remaining:	Remaini	:Su		
Binh port is the biggest of the river ports, located at the center of this zone, and has a major role in transportation. However the cargo handling volume in the year 1992 was reduced to only two thirds of the cargo volume in the year 1988. (1988 - about 500 thousand tons, 1992 - about 300 thousand tons). One of the main reasons is that the port facilities and equipment are outdated. In the near future, Ninh Binh thermal power plant will be expanded, and the two big new cement plants (But Son and Tan Diep) will be constructed. The cargo handling volume of this port, (mainly coal, construction materials and cement) is forecasted at 2 million tons in the year 2000, and 3 million tons in 2010. Therefore the rehabilitation and improvement of this port will be required in three steps. At first it will be necessary to rehabilitate urgently the existing facilities and equipment. In the second and third steps the new port at Ninh Fhu, which is located at 4 km distance downstream from the existing port on the Day River, will have to be built, having 0.4 million tons capacity until the year 2000, and 1.4 million tons capacity until the year 2000, and 1.4 million tons capacity until the year 2000.	He biggest of the river ports, located at the center of this zone, and has a major role in the biggest of the river ports, located at the center of this zone, and has a major role in the year 1988. (1988 - about 500 thousand tons, 1992 - about 300 thousand tons). In reasons is that the port facilities and equipment are outdated. In the near future, Ninh Binh reasons is that the port facilities and equipment are outdated. In the near future, Ninh Binh reasons is that the port facilities and equipment are outdated. In the near future, Ninh Binh region handling volume of this port, (mainly coal, construction materials and cement) is million tons in the year 2000, and 3 million tons in 2010. The cargo handling volume of this port will be required in three steps. At first it will be chabilitate urgently the existing facilities and equipment. In the second and third steps the new fru, which is located at 4 km distance downstream from the existing port on the Day River, will lift, having 0.4 million tons capacity until the year 2000, and 1.4 million tons capacity until the	renter of this zone, a sar 1992 was reduced to 1992 about 300 thous. In are outdated. In the cement plants (But Son ly coal, construction in 2010. I be required in three signment. In the second in from the existing point from the existing point 2000, and 1.4 million.	nd has a majo oonly two thir and tons). e near future, N n and Tan Diep naterials and co steps. At first i and third steps rt on the Day Ri n tons capacity	trole in ds of the inh Binh by will be the new iver, will until the until th	Rehabilitation Perths, 5 ha set set set set set set set set set set	And the change of post of post of post of port equipm materials-handling materials-handling materials-handling materials-handling materials-handling materials-handling materials-handling materials-handling materials-handling materials-handling port oranes, some machines	tkya ilings f por wice wice por	port facilities: 3 rd pment (7 cranes, 40 machines) t facilities: 6 berths lth 12 m, for 1,000) ton barges.), 3 ha ort equipment: 6 materials-handling	, <u>4 5 0</u>	e to identify usern apply surplus space made redevelopment. As for an environmenta refer to chapter 2, Initia Examination, Volume 3.	fy users space space pment, pment, n, Volum,	na appu made mental me 3.	surplus space made available by redevelopment. As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	of the by please mental
Development: Serial Year	1st. Year (1994)	2nd. Year (1995)	3rd. Year (1996)	(96	4th. Year (1997)	(266	5th Year (1998)	(3998)	et.	6th Year (1999)	6	7	7th Year (2000)	(000)
Schedule Calender Month Items Serial Month	onth 3 6 9 12	3 6 9 12	6 9 E	12 3	6 9	9 12	3	9 12		6 9	12		9	9 12
1. Feasibility Study								-		ļ	-			
2. Detailed Design/Bid Documents											ļ			
3. Bidding/Negotiation											-			
4. Procurement & Implementation											\prod		\prod	
										_	-		_	

1 - 69

IW-1
de No.:

Name of Project: Ninh Binh Port Rehabilitation and Extension	nd Extens	nois							Unit: US\$1,000
	(2)	(3)	(4)	(2)	(9)	(2)		(8)	
Description	Unit	Ç,	Unit Cost	Amount	FC	Đ ₁	D.	% I CD	Remarks
The Existing Port (-2000)	٠			-					
- renabilitation of 3 existing jettles $l = 13.5 \text{ m, } w = 10 \text{ m, } h = 8 \text{ m}$	È	405	5.0	202	101	101	ନ	ූ	:
- Procurement of equipment									
shovel	Nos	ທ	20	320	280	29	8	8	
bulldozer	Nos	7	8	420	336	84	8	23	
truck	Nos	25	88	2,325	1,860	465	8	70	
The New Port (-2000)							,		
- Construction of 6 berths of 12 m x 400	E	4,800	1.5	7,200	3,600	3,600	ß	20	
- Grading of yard	m ²	30,000	0.0005	5	С	12	50	8	
- Procurement of equipment									
fixed type unloading crane 200 t/h	Nos		400	400	320	80	8	50	
movable crane	Nos	ເດ	350	1,750	1,400	350	80	20	
shovel	soN	m	8	210	168	42	8	20	
bulldozer	Nos	r.	જ	300	240	09	&	20	:
truck	Nos	15	86	1,395	1,116	279	8	20	
Subtotal				14,567	9,424	5,143			
Contingency	%	10		1,456	942	514			
A. Total of Direct Construction Cost				16,023	10,366	5,657			
B. Detailed Design & Supervision (C x %)	%	10		1,602	1961	641	8	64	
C. Land Acquisition Cost									
D. Total Project Cost				17,625	11,327	6,298			
			Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Exch	ange rate	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

	reconstruction of the self of the self of	-		Injury (A) story	11624	Lie Mes	All Mari	
	Haivoi and viet in Fort Improvement			Inland Waterway	way	ria Noi Viet Tri	ria Noi (Ha Noi City) and Viet Tri (Vinh Phu Province)	nd ince)
Development body:	[n]and Waterway Bureau (WB)	Ministry in-charge:	in-charge.	Project Cost: ('0005)	(30)	US\$ ('000's)	Technical Assistance	tance
Onemation Rody.		Sortion:	ansport and condition		1	29,622	🗌 req'd 📋 notreq'd	not req'd
IWB				10,800 Dong)	Foreign	22,660	Financial Assistance:	ance: not ran'd
Brief of Project: (Exst. condition, D.	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	tc.)		Major Development Components:	omponents:	Specific Issues Remaining:	maining:	7
Ha Noi port is located in the F	Ha Noi port is located in the Ha Noi Capital zone, and Viet Tri port is at		the center of the northern inclustrial	- Improvement and	and Rehabilitation of	- to identify	to identify useful annuations for the	Hone for t
area in the study region. Bot	area in the study region. Both of these ports are important components	nponents in their resp	in their respective zones of inland	port facilities		surplus sp	surplus space made a	available by
waterway transportation, althered handling volume of these por	waterway transportation, although their port facilities and equipment, handling volume of these ports is reduced. But the demand forecast to		are outdated. Therefore the cargo the year 2000 for cargo handling at	- Viet Tri port: 3	Viet Tri port: 3 berths for flood season, 3 berths for dry season, 2.6 ha	redevelopment.	nent.	
these ports calls for moving al about 1.5 million tons, and V	these ports calls for moving about two to three times the present volume. Ha'Noi port cargo volume may be about 1.5 million tons, and Viet Tri port cargo volume approximately. I million tons. Therefore the port	volume. Ha Noi por imately 1 million ton	Ha Noi port cargo volume may be 1 million tons. Therefore the port	stockyard - Ha Noi port: 2	seas	As for an env	As for an environmental impact, please refer to chapter 2, Initial Environmental	pact, pleas
facilities and equipment of the the forecasted cargo volume.	facilities and equipment of the both ports will be improved and rearranged to more efficiently keep pace with the forecasted cargo volume.	earranged to more eff.	iciently keep pace with	3 berths for stockyard	for dry season, 2.9 ha	Examination, Volume 3.	Volume 3.	
				- Renewal and equipment (cra	Renewal and Repair of port equipment (cranes, materials handling			
				2.5				
 1 - 2				- 23	port: 11 cranes, some indling machines			
71.				 Ha Noi port: 11 crane materials handling machines 	port: 11 cranes, some andling machines			
					·			
						·		
Development: Serial Year	r 1st. Year (1994)	2nd. Year (1995)	3rd. Year (1996)	4th. Year (1997)	5th, Year (1998)	6th. Year (1999)		7th. Year (2000)
Schedule Calender Month Items Serial Month	Month 3 6 9 12 3	6 9 12	3 6 9 12 3	1 6 9 12	3 6 9 12	σ. φ	12 3 6	9 22
1. Feasibility Study								
2 Detailed Design/Bid Documents								
3. Bidding/Negotiation								-
4. Procurement & Implementation								+-

IW - 2

			(-	_						
			(2)	(3)	(4)	(2)	(9)	(3	~	 		
	Description								, 6	%	Remarks	
			Unit	Q'ty	Unit Cost	Amount	FCP	LG G	FG	LG G		
Ha Noi (-2000)												
- Rehabilitaior for rainy sea	Rehabilitation of 2 existing jetties for rainy season, $l=140$ m, $w=13m$, $h=9$ m	es 13m, h = 9 m	E	1,820	5.0	910	455	455	20	ß		
- Rehabilitaior for dry seaso	Rehabilitaion of 3 existing jetties for dry season, $l = 35 \text{ m}$, $w = 13 \text{m}$, $h = 7 \text{ m}$	es n, h∷≕ 7 m	in,	455	0.5	227	113	114	SS	SS.		
- Procurement	Procurement of equipment											
fixed type of	fixed type of unloading crane	200 t/h	Nos	4	2,000	8,000	6,400	1,600	8	20		
movable crane	Je	35-40 t	Nos	ιΩ	1,700	8,500	008'9	1,700	8	20		
bulddozer		3- 6 t	Nos	2	8	120	96	24	8	20		
truck		111	Nos	10	88	930	744	186	8	20		
1 - 73												
 .												
						-		-				
												<u> </u>
										·		
Subtotal	:	: .				18,687	14,608	4,079		:		
Contingency			%	10		1,868	1,460	408				

IW-2

Code No.: IW-2

	9	(3)		(4)	(3)	(9)	(3)	~		
Description	· · · · · · · · · · · · · · · · · · ·						·	. 6	8	Remarks
	Unit	Q'ty		Unit Cost	Amount	FCP	ដ្ឋ	FC	ĘJ.	
Viet Tri (-2000)										
- Rehabilitaion of 3 existing jetties for rainy season, $l=10\mathrm{m},w=10\mathrm{m},h=8\mathrm{m}$	E .	100	00	0.5	20	25	25	જ	20	
- Rehabilitation of 3 existing jettles for dry season, $l=20 \text{ m}$, $w=30 \text{m}$, $h=7 \text{ m}$	11 ²	009		0.5	300	150	150	ନ୍ତ	20	
- Grading of yard		26000	<u> </u>	0.0005	13	ന	10	R	8	
- Procurement of equipment						-				
fixed type of unloading crane 200 t/h	Nos		23	400	008	649	160	8	70	
movable crane	Nos		σ,	350	3,150	2,520	089	8	70	
bulddozer	Nos		60	8	180	144	36	08	70	
truck	Nos		14	93	1,302	1,042	260	88	50	
									à	
									<u></u>	
	 									
Subtotal					5,795	4.524	1.271			
Contingency	%	10	0		579	452	127			
A. Total of Direct Construction Cost					26,929	21,044	5,885			
Detailed Design & Supervision (C x	(%)				2,693	1,616	1,077			
C. Land Acquisition Cost										
D. Total Project Cost		1			29.622	22 660	6,96,9			

(Project Profile) Short-Term Development

Code No.	Name of Project:									χ							1	إ				
IW-3	The Main Waterway Dredging and Rearrangem	dging and R	earrangeme	ent						Inlar	Inland Waterway	rway					No.	C Ninh-Ka hong - Na h of Day ri	LOCALDON NIN-Fai Phong-Pha Lai (via Da Bach, Moo Kha river) Hai Phong-Nam Dink-Mah Binh (via Laioc, Hong, Day river) mouth of Chy river/Allah Binh (hyp river) Pla Lai-Hai Mak-Via TX (san Danne, Via — 7 anne)	Lai (vie De Binh (vie D	Bech, Mac)	Day river)
Development Body: Inland	Inland Waterway Bureau (IWB)		Ministry in-charge:	-charge	: e Tran	anort an	d Come	n-charge: Ministry of Transport and Communications		Project (Project Cost: ('0005)	(5000				US\$ ('000\$)	(\$0	1	Technical Assistance	Assista	je Je	Ī
Crossion Rody				, m			1			Š	ia		읩	Total		7,599	6		☐ reg'd ☐ not reg'd	٦	tot regi	
WB IWB			Section:							10,800 Dong)	Dong)		요	Foreign		3,869	6	逞	Financial Assistance:	Assista	:30:	Ang ath
						:							Š	Vietnam		3,730			☐ req'd		not req'd	
Brief of Project: (Exst. condi	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	s, Rational et	(c)						Major	Devel	opment	Major Development Components:	nents:			Specific	Specific Issues Remaining:	Remai	ning:			
shallows and steep curbanks. Therefore the narrivers are required to minibe specialized in maintenance of adequated the Land Carlo km 2. Hai	shallows and steep curvatures in the inland waterways because of heavy siliation and erosion along the river banks. Therefore the navigation of the transport fleet is frequently difficult. Dredging and re-alignment of the rivers are required to maintain the proper water depth for navigation. In future the inland waterway transport will be specialized in coal and construction materials, and a high priority must be attached to ensuring maintenance of adequate water levels. Following are the highest-priority routes: I. Quang Ninh-Hai Phong-Pha I at (140 km) 2 Hai Phong-Nam Dinh-Ninh Rish Phong-Nam Ninh Rish Prop. 2 Ninh Brish Prop. 2000 km) 2 Hai Phong-Nam Dinh-Ninh Rish Prop. 2 Ninh Brish B	s because of frequently for navigations, and a highest the highest for the hig	of heavy sill result. I difficult. Ion. In futt tigh priori. Priority number to the tigh priori.	Dredg Dredg ure the ty mus	and er ing an inland it be	osion a d re-ali I water attached ng Nin	long the gramen way tradition of the error h-Hai	liation and erosion along the river. Dredging and re-alignment of the cute the inland waterway transport ity must be attached to ensuring routes: I. Quang Ninh-Hai Phong-		Cutting cutting cutting cutting cutting cutting cutting counting cutting cutting counting cou	Quang Ninh-F Quang Ninh-F 1.0 million m cutting off of tl Hai Phong-Na 0.3 million m ³	Hai Pl n³ (inc the riv am Dii	Quang Ninh-Hai Phong-Pha Lai route 1.0 million m³ (included 1,000 m³ of cutting off of the river beds) Hai Phong-Nam Dinh-Ninh Binh route 0.3 million m³	1,000 r	n³ of	As frefer	urry ou for an r to d	t effec envir apter on, Vo	carry out effective execution. As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	ecution tal im	i. Pact, p ironm	licase ental
Pha Lai-Ha Noi-Viet The accommodate larger version for larger-sized vessels. estuary, because it will necessary to cut a ne will necessary to cut a necessary to cut	Pha Lai-Ha Noi-Viet Tri (160 km). It is recommended to further upgrade these waterways after 2010, to accommodate larger vessels. The shifted coastal route from Quang Ninh to Ninh Binh will be a better route for larger-sized vessels. In this case, the access from the coast to this route will be via the Ninh Co river estuary, because it will be better than the Day river estuary that has problems of river-mouth closure, but it will necessary to cut a new canal connecting the Nin Co and Day rivers in the vicinity of Quan Lieu.	ad to furth from Qual the coast truary that	er upgrad ng Ninh to to this rou has proble ivers in the	e these of Ninh the will the w	wate Binh Binh be vi river-	Lay from the land the	after 2 after 2 a bette Vinh C closure eu.	Ann, 4. 010, to or route or river y, but it	· · · · · · · · · · · · · · · · · · ·	Stun 3.8 mil Pha L 3.3 mil	oun bine-no 0.8 million m³ Pha Lai-Ha N 0.3 million m³	Noi-Vi	Num bine-moun of Day nyer route 0.8 million m³- Pha Lai-Ha Noi-Viet Tri route 0.3 million m³	nver	Jour	-						
1 - '7'																			٠			
SS-SWELLING TO SPECIAL STREET								•	· - · · · ·													
	. :														· · · · · · · · · · · · · · · · · · ·							
Development: Seri	Serial Year 1994))	2nd. Year (1	(1995)		3rd. Year (1996)	ar (1996		44	4th. Year (1997	(266		5th. Year (1998)	r (1998)		6th	6th. Year (1999)	666	-	7th. Ye	7th. Year (2000)	
. sur	Calender Month 3 6 9 Serial Month	12 3	6 9	12	, ,	9	6	27	. m	6 9	12	69	9	٥	21	- e	9	12	en en	9	9	22
1. Feasibility Study																	-	-	-	ļ		
2 Detailed Design/Bid Documents	uments																<u> </u>	ļ		-	<u> </u>	
3. Bidding/Negotiation									1							-	ļ	ļ	-			
4. Procurement & Implementation	ıtation									H	-					H	$\ \cdot\ $	H		L		
				-				1	1	$\left\{ \right.$		-			1	1	-	-	-	_		

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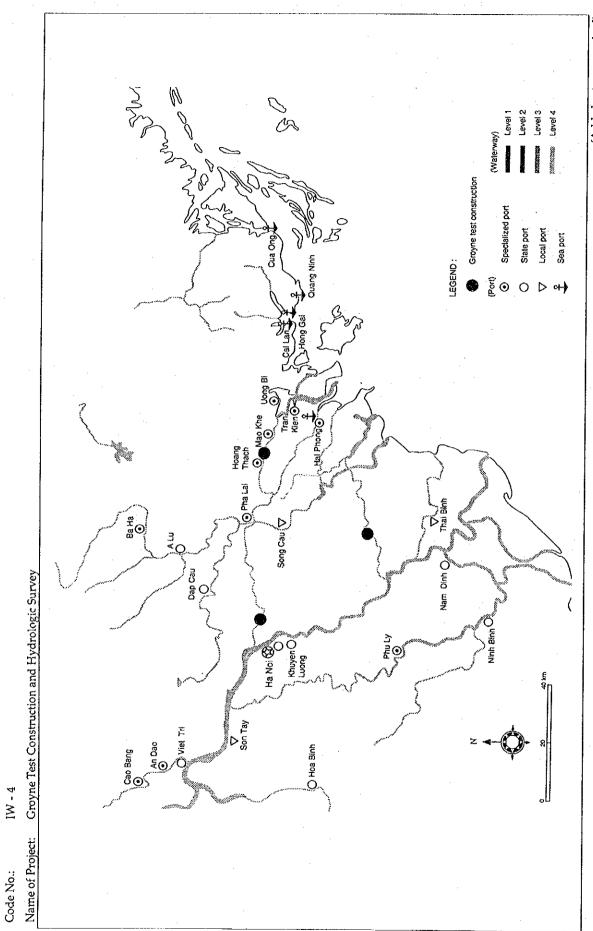
IW - 3

IW-3
Code No.:

									O1111. COOL,000
Description	(2)	(3)	(4)	(5)	(9)	(2)		(8)	
4	Unit	Q'ty	Unit Cost	Amount	ξ	Đ _I	Ü	£	Kemarks
(-2000)									
Water way dredging in the river between									
- Quang Ninh and Hoang Tach (-1996)	E .	650,000	0.002	1,300	650	650	 S	20	
- ditto - (Rock)	E.	100,000	0.02	2,000	1,000	1.000	S	. G	
 Hoang Thach and Pha Lai 	°E		0.002	009	300	000	S 59		
- Pha Rai an d Ha Noi	E E	100,000	0.002	200	100	100	- F	S 25	
- Hai Phong and Nam Dinh	<u>چ</u>	300,000	0.002	009	300	300	- G	, in	
- the mouth of Day rever and Ninh Binh	ELL.	000'062	0.005	1,580	290	730	8	S	
				:					
		· .			-	-			
Subtotal	<u>.</u>			6,280	3,140	3,140			
Contingency	%	10		628	314	314			
Total of Direct Construction Cost				806'9	3,454	3,454			
Detailed Design & Supervision (C x	%) %	10		691	415	276	8	4	
C. Land Acquisition Cost									
Total Project Cost				7.599	3 869	3 720			

(Project Profile) Short-Term Development

Open No	Name of Project					1644.					ľ		İ				
IW - 4	Groyne Test Construction and Hydrologic Survey	d Hydrologic Survey				oue. Inland Waterway	aterway					Ocarion: Otang Hai Pi	r g Ninh hone-7	-Hai P	cauon: Quang Ninh-Hai Phong-Pha Lai Hai Phone:Nam Dinh-Ninh Binh	ia Lai Binh	****
Development Body: Inland Water	Inland Waterway Bureau (IWB)	Ministry in-charge:	in-charge: Ministry of Transport and Communications	unication		Project Cost: ('0006)	(9000.)			2	US\$ (1000S)	63	Ted	hnical /	Technical Assistance	 8	Γ
Operation Body:		Section:	1			10.800 Dona)	7	F G	Total		182		إلا] requ	☐ req'd ☐ not req'd	ot req'd	
IWB					2			4 >	Vietnam		139		į	nancial As	rinandial Assistance:	sistanœ: 🗀 not req'd	•••••••••
Brief of Project: (Exst. condition, I	(Exst. condition, Dev. Framework, Beneficiaries, Rational etc.)	tional etc.)			Major D	Major Development Components:	nt Comp	onents:		0,	pecific	Specific Issues Remaining:	emain	i.g		'	Π
Groyne is an effective construction belpful in maintaining the was be operated by larger-sized venstruct groyne at any suif Phong-Pha Lai route and the the first stage, until the year 2 of those first groyne installating determine the most suitable in be constructed regularly to constructed regu	Groyne is an effective construction for protection of river banks and stabilization of river current, so it is helpful in maintaining the water depth of a river. After the year 2010, the inland waterway transportation will be operated by larger-sized vessels to correspond with the increased cargo demand. It is recommended to construct groyne at any suitable positions in the main waterway routes, especially the Quang Ninh-Hai Phong-Pha Lai route and the Hai Phong-Ninh Binh route, as well as dredging and deepening the river bed. At the first stage, until the year 2000, the groyne will be constructed experimentally. Then the hydrological effects of those first groyne installations will be monitored and analyzed for a period of two to three years, in order to determine the most suitable methods of construction. In the next stage, from the year 2001 to 2010, groyne will be constructed regularly to correspond with navigation of larger-sized vessels.	r banks and stabilization: year 2010, the inland wale increased cargo deman waterway routes, especial well as dredging and de ucted experimentally. The alyzed for a period of two e next stage, from the year arger-sized vessels.	n of river current, interway transportation of a list recommen ally the Quang Nile espening the river been the hydrological to three years, in our 2001 to 2010, groy or 2010, groy or 2	oo it is on will ded to will ded to wh-Hai ed. At effects rder to ne will ne will	(experimental desired by the control of the control	(experimental construction) - Mao Khe river 1 point (length 500 m along both banks) - Duong river 1 point (length 300 m along both banks) - Luoc river 1 point (length 300 m along both banks)	l constructor l point	uction) sint g both b tt g both b g both b	anks) anks) anks)		oor cor cor Exam	- to study carefully the result of test construction As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	on on mviros pter 2 v, Volt	nment , Initi:	al imp	alt of sect, pi	lease entai
Development: Serial Year	r 1st. Year (1994)	2nd. Year (1995)	3rd. Year (1996)		4th. Ye	4th. Year (1997)	-	5th. Ye	5th. Year (1998)		6th. Y	6th. Year (1999)	ŝ.		7th. Year (2000)	£ (2000	_
Schedule Calender Month Items Serial Month	Month 3 6 9 12	3 6 9 12	3 6	12 3	9	o.	12	9	9	12 3	•	6	12	60	9	0,	12
1. Feasibility Study								-		-	<u> </u>		_				
2 Detailed Design/Bid Documents	83											-	ļ				
3. Bidding/Negotiation																	
4. Procurement & Implementation				1						H				ļ.,			
										1	$\left\ \cdot \right\ $	-	_	_			

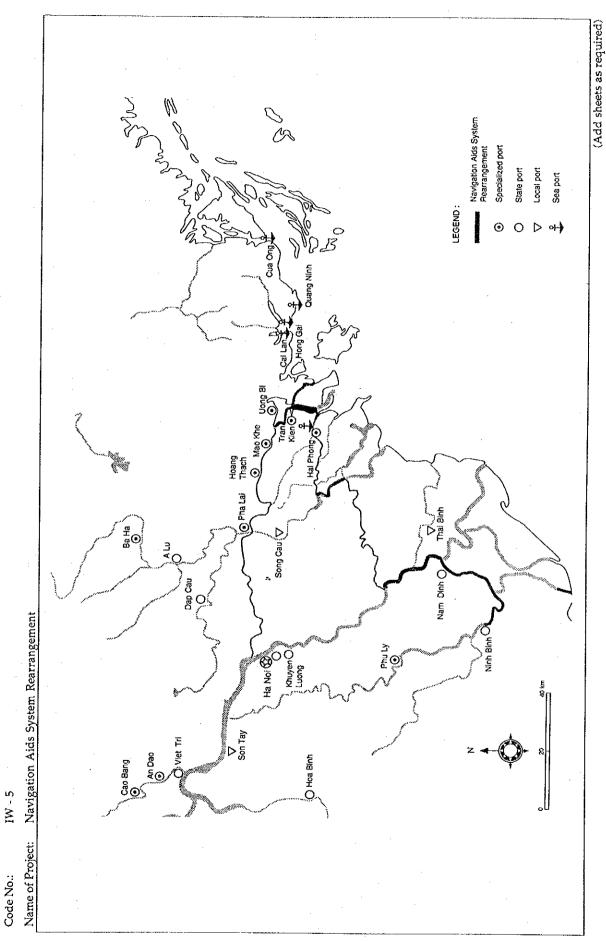


IW-4
ode No.:

Name of Project: Groyne Test Construction and Hydrologic Survey	drologic	Survey								Unit: US\$1,000
	(5)		(3)	(4)	(5)	(9)	3		(8)	
Description	Unit	. :	Q'ty.	Unit Cost	Amount	FCP	ğ	Ę,	rG %	Remarks
(-2000) Tretailation of Coming for took and analyzed	ş		000 1	u ·	0.1					
Installation of Grouns for test and analyze $l = 100 \text{ m/each}$, 10 groins, total 1,000 m	E 		000'T	0.15	051	30	12	8 	<u></u>	
		•								
										-
									·	
1 00				,						
						:				
Subtotal		<u> </u>		•	150	99	120			
Contingency	82		10		15	m	12			
A. Total of Direct Construction Cost		-			165	33	132			
B. Detailed Design & Supervision (C x %)	%		10		17	10	7	8	40	
C. Land Acquisition Cost										
D. Total Project Cost					182	43	139			
				Tota	Total Direct Cost (Price of 1993)	rice of 1993)		Exci	nange rat	Exchange rate: 1US\$ = 10,800 Dong

(Project Profile) Short-Term Development

Code No	Nicone of Decimals															
IW - S	ids System Rearrangem	ent		2	Inland Waterway	aterwa					3 30xe	ibon: uang Ni ai Phon ne mout	AP-Hail	Phong-F Sinh-Nis river-N	Locabon: Quang Ninh-Hai Phong-Pha Lai Ha Noi Hai Phong-Nam Dinh-Ninh Binh The mouth of Day river-Ninh Binh	No.
Development Body: Inland Wate	Irland Waterway Bureau (IWB)	Ministry in-charge: Ministry of Transport and Communications	port and Communication		Project Cost: ('0006) (1 USS=	£ (3000	^			US\$ ('000S)	(S000)		Technical Assistance:	Assi Assi	stance:	
Operation Body:		Section:			(V 000 0 t	7		Total	\downarrow		773	Ť		eq'd	🔲 req'd 🔲 not req'd	g.
IWB				<u>-</u>	300	So.	•	Foreign	1		183	1	Financial Assistance:	al Assi T	stance:	
-				-		ļ		, rentam		-	2	\dashv	ב כ	8	not req a	ט ט
brief of 170)ect. (Exst. condition,	(EXSI. condition, Dev. framework, beneficiaries, Kational etc.)	(3)		Major U	Major Development Components:	5 5	ponent	:2		Sp.	Specific Issues Remaining:	es Rem	aining:			
outdated. In addition, the trougher of the addition, the trougher of the bring it no to current stand dredging and improvement system are; 1Quang Ninh-Friver-Ninh Binh. One new tyear 2010, a night navigatio Quang Ninh-Hai Phong-Pha	unte approximately 1,400 markets making up the existing havigation alse system are not enough and they are outdated. In addition, the transport fleet can navigate only during the daytime, because the light signals are outdated. In addition, the transport fleet can navigate only during the daytime, because the light signals are offer mis-functioning. On the main waterway routes, a program of renovating the navigation aids system to bring it no to current standards should be carried out during the period until the year 2000, along with dredging and improvement of the river bed. The priority waterway routes for renovating the navigation system are; 1. Quang Ninh-Hai Phong-Pha Lai-Ha Noi, 2Hai Phong-Nam Dinh-Ninh Binh, 3mouth of Day river-Ninh Binh. One new type of signal is operated by electricity and powered by solar batteries. After the year 2010, a night navigation system suitable for larger vessels should be set up on the two main routes, Quang Ninh-Hai Phong-Pha Lai and Quang Ninh-Hai Phong-Ninh Binh (via the coastal route).	on alds system are not end the daytime, because of removating the navigg the period until the yearway routes for remova ong-Nam Dinh-Ninh Bir y and powered by solar should be set up on the Birh (via the coastal round the coastal round by the coastal round the Birh (via the coastal round by the coastal round by the coastal round by the birth co	the light signals are the light signals are atton aids system to ar 2000, along with ting the navigation h, 3mouth of Day batteries. After the two main routes, ute).		to re-instain markers (buoys, beacons, land markers, etc.) - Quang Ninh-Hail Phong-Pha Lai- Ha Noi route: about 700 markers, - Hai Phong-Nam Dinh-Ninh Binh route: about 380 markers, - Quang Ninh-Ninh Binh coastal route: about 60 markers.	ers, erc cirs, erc cong-to, ong-to, ong-to, ont 60	kers to	uoys, o ng-Pha I nh-Nini ers, Binh rs.	eacons, ai ai ers, r Binh coastal		- to study to make up center-control by network after the year network after the year a feasibility study for system for waterwayy telecommunications rate to chapter 2, Initia Examination, Volume 3.	to study to metwork after on network after on network after on a feasibility state system for was telecommunic. for an enviro fer to chapter, amination, Vo	to study to make up the syscenter-control by communetwork after the year 2010. Reasibility study for a central system for waterways signals, telecommunications networks, for an environmental impact fer to chapter 2, Initial Environ amination, Volume 3.	up th con con ays si so nety that El	- to study to make up the system of center-control by communication network after the year 2010. - a feasibility study for a central control system for waterways signals, via the telecommunications networks. As for an environmental impact, please refer to chapter 2, Initial Environmental Examination, Volume 3.	em of cation ontrol is the please nental
Davelonment . Comin Voca	1ct Von (1004)	2 V Voca (1005)	(3000)X	2	2000			3	1	[;	1000		į	;	600
Schedule Calender Month	-	(2661)	3rd, rear (1996)	4.	4m. rear (1997)		ਸ਼ੂਂ -	otn. Year (1998)	<u>.</u>		oth. Year (1999)	(KK)	-	-	/tn. Year (2003)	<u> </u>
Items Serial Month	onth 3 6 9 12 3	6 9 12 3	6 9 12 3	•	٥	12	m	9	17	ო	•	ο,	23	ю	vo.	9 12
1. Feasibility Study													-			<u> </u>
2 Detailed Design/Bid Documents	str							<u></u>								
3. Bidding/Negotiation															<u> </u>	<u> </u>
4. Procurement & Implementation	g			-							П					<u> </u>
						1	1	$\frac{1}{2}$			1		1	1	-	4



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Continue of Description Continue of Desc	Name of Project: Navigation Aids System Rearrangement	Rearrangeme	ant								Unit: US\$1,000
Continue				(3)	(4)	(5)	(9)	(2)	<u> </u>	8)	
Contingency Contingency	Description								6	24	Remarks
No. S. S. 1 S. S. 1 S. S.	THE RESERVE OF THE PROPERTY OF	'n	ıit	Q'ty	Unit Cost	Amount	FCP	<u>G</u>	FCP	Į.	
No.	(-2000)										
Queng Ninh - Pha Lai, 140 km Nos 53 1 553 11 42 20 80 - buoy Nos 244 0.5 1122 24 98 20 80 - signal board Nos 35 1 35 7 28 20 80 - signal board Nos 60 1 60 12 48 20 80 - signal board Nos 50 10 1 10 2 8 20 80 - buoy Nos 10 1 10 2 8 20 80 - signal board Nos 50 0.5 25 25 5 8 20 80 Subtotal Nos 50 0.5 25 25 5 8 9 4 Contingency 8 10 1 10 2 8 20 80 4 8 9 8 Contingency 8 10 64 13 51 4 8 9 4 <td>Rehabilitation of Navigation Aid</td> <td></td>	Rehabilitation of Navigation Aid										
- Signal board - Signal board - Signal board - Signal board - Hal Phong - Nat Tri - buoy - Signal board	Quang Ninh - Pha Lai, 140 km										
- signal board Nos 244 0.5 122 24 98 29 20 80 Ph Lai - Ha Noi - Vset Tri Nos 35 1 35 17 28 20 80 - boxy Nos 60 1 60 12 48 20 80 - boxy signal beard Nos 320 0.5 160 32 139 20 80 - boxy signal beard Nos 30 0.5 160 32 138 20 80 - boxy signal beard Nos 50 0.5 55 5 20 80 - boxy signal beard Nos 50 0.5 5 5 8 9 30 80 8 - boxy signal beard Nos 50 0.5 25 5 20 80 8 - boxy signal beard Nos 5 10 6 11 5	- buoy	ž	SC	23		53	11	42	8	8	
Pha Lai - Ha Noi - Vet Tri Nos 35 1 35 7 28 20 80 - busy - signal board Nos 48 0.5 174 35 139 20 80 - signal board Nos 60 1 60 12 48 20 80 - signal board Nos 10 1 10 2 48 20 80 - busy - signal board Nos 10 1 10 2 8 20 80 - busy - signal board Nos 50 0.5 25 5 20 80 - busy - signal board Nos 50 0.5 25 5 8 20 8 - cuthgency - signal board 5 10 6 13 5 1 8 - cuthgency - signal board 5 10 6 1 5 1 8 1 8 1	- signal board	ž	SC	244	0.5	122	24	86	20	80	
- budy Nos 35 1 35 7 28 20 80 - signal board House Nam Dinh - Ninh Binh Nos 60 1 60 12 48 20 80 - budy Nos 320 0.5 160 12 48 20 80 Etury of Day tiver - Ninh Binh Nos 10 1 10 2 8 20 80 - budy Nos 10 1 10 2 8 20 80 - budy Nos 10 1 10 2 8 20 80 - budy Nos 50 0.5 25 5 2 80 80 - budy Nos 10 1 10 2 8 20 80 80 - budy Subtornal 8 13 8 13 8 8 8 8 8 8 8 8 8 8	Pha Lai - Ha Noi - Viet Tri										
- signal board No. 946 0.5 174 35 139 20 80 - buoy No. 60 1 60 12 48 20 80 - buoy No. 320 0.5 160 32 160 80 Estury of Day river - Ninh Binh No. 10 1 10 2 8 8 80 - signal board Nos 50 10 1 10 2 8 8 8 8 - signal board Nos 50 10 1 10 2 8 8 9 8 9 8 9	- buoy	ž	sc	35	F	35	7	28	20	8	
Hai Phong - Nam Dinh - Ninh Binh - buoy - signal board Estury of Day river - Ninh Binh - signal board - signal board - signal board - signal board - signal board - contingency - signal board - contingency - signal board - contingency - signal board - contingency - signal board - contingency - signal board - contingency - signal board - contingency -	- signal board	ž 	sc	348	0.5	174	35	139	20	80	
- buoy Nos 60 1 60 12 48 20 80 - signal board Nos 320 0.5 160 32 128 20 80 - buoy Nos 10 1 10 2 8 20 80 - buoy Nos 50 0.5 25 5 20 20 80 - buoy Nos 50 0.5 25 5 20 80 80 - buoy Nos 50 0.5 25 5 20 80 80 - chord 6 10 2 5 5 20 80 80 Subtotal 6 10 64 13 51 8 1 C. Land Acquisition Cost 70 70 42 28 60 40 C. Land Acquisition Cost 8 10 70 42 28 60 40 D. Total Project Cost	Hai Phong - Nam Dinh - Ninh Binh										
- signal board Nos 320 0.5 160 32 128 20 80 Estury of Day river - Ninh Binh Nos 10 1 10 2 8 20 80 - buoy Nos 50 0.5 25 5 20 80 80 - signal board Nos 50 0.5 5 25 20 20 80 Subtotal Salar 10 6 13 5 1 80 80 40 A. Total of Direct Construction Cost 7 70 42 28 60 40 C. Land Acquisition Cost 7 70 70 42 28 60 40 C. Land Acquisition Cost 7 70 70 70 42 80 40 D. Total Project Cost 7 7 73 183 590 1	· buoy	ž	 8	09		9	12	48	20	8	
Estury of Day river - Ninh Binh - buoy - buoy - signal board Nos 90 10 10 1 10 2 8 20 80 80 80 80 80 80 80	- signal board	ž		320	0.5	160	32	128	8	80	
- buoy - signal board - Subtotal - Subtotal - Subtotal - Contingency - Land Acquisition Cost - Signal - Subtotal - Contingency - Land Acquisition Cost - Charl Project Cost - Signal - Subtotal - Subt											
- signal board Nos 50 0.5 25 5 20 80 Subtotal Subtotal Subtotal 639 128 511 7 1 A. Total of Direct Construction Cost 7 10 64 13 51 7 1 B. Detailed Design & Supervision (C x 5 7 70 42 28 60 40 C. Land Acquisition Cost 7 7 183 590 7 7 D. Total Project Cost 7 7 183 590 7 7 D. Total Project Cost 7 7 183 590 7 7		<u>ž</u> —	SC	10	-	10	7	80	20	8	
Subtoral 639 128 511 511 Contingency 64 13 51 51 Total of Direct Construction Cost 70 64 13 51 64 Detailed Design & Supervision (Cx 50 70 42 28 60 40 Land Acquisition Cost 10 70 42 28 60 40 Total Project Cost 773 183 590 7 10 70 1041 Direct Cost (Price of 1993) Exchange rate:		ž —		20	0.5	25	ເນ	20	8	08	
Subtotal 639 128 511 511 Contingency 64 13 51 51 Total of Direct Construction Cost 70 64 13 51 64 Detailed Design & Supervision (C x 70 703 141 562 60 40 Land Acquisition Cost 10 70 42 28 60 40 Total Project Cost 773 183 590 7 Total Project Cost 773 183 590 Exchange rate:											
Subtotal 639 128 551 551 Contingency % 10 64 13 51 Total of Direct Construction Cost % 10 64 13 55 9 Detailed Design & Supervision (C x % 70 42 28 60 40 Land Acquisition Cost 10 70 42 28 60 40 Total Project Cost 773 183 590 7 1 Total Project Cost 773 183 590 8 Exchange rate.									<u>-</u> .		
Subtotal 639 128 511 511 Contingency 5 10 64 13 51 7 Total of Direct Construction Cost 5 10 703 141 562 5 9 40 Land Acquisition Cost 10 70 42 28 60 40 Lotal Project Cost 773 183 590 7 10 7 10 1				•			_				
Subtotal 639 128 511 51											
Subtotal 639 128 511 Figure Contingency % 10 64 13 51 Figure Total of Direct Construction Cost 703 141 562 7 40 Detailed Design & Supervision (C x % 70 42 28 60 40 Land Acquisition Cost Total Project Cost 773 183 590 Fixchange rate:											
Contingency % 10 64 13 51 P Total of Direct Construction Cost 703 141 562 9 40 Detailed Design & Supervision (C x %) % 10 70 42 28 60 40 Land Acquisition Cost Total Project Cost 773 183 590 1 Exchange rate:	Subtotal			-		639	128	511			
Total of Direct Construction Cost % % 10 70 42 28 60 40 Detailed Design & Supervision (C x %) % % 10 70 42 28 60 40 Land Acquisition Cost Land Acquisition Cost 773 183 590 7 183 Exchange rate:	Contingency	%		10		22	13	51			
Detailed Design & Supervision (C x %) % 10 70 42 28 60 40 Land Acquisition Cost Land Acquisition Cost 773 183 590 Total Project Cost Total Project Cost Total Direct Cost Total Direct Cost Exchange rate:	- 1					203	141	562			
Land Acquisition Cost T73 183 590 Exchange rate: Total Project Cost Total Direct Cost (Price of 1993) Exchange rate:				10		70	42	28	8	8	
Total Project Cost 773 183 590 Exchange rate:											
Exchange rate:	D. Total Project Cost					773	183	290			-
>					Tota	Direct Cost (P1	ice of 1993)		Exch	ange rate	e: 1US\$ = 10,800 Dong