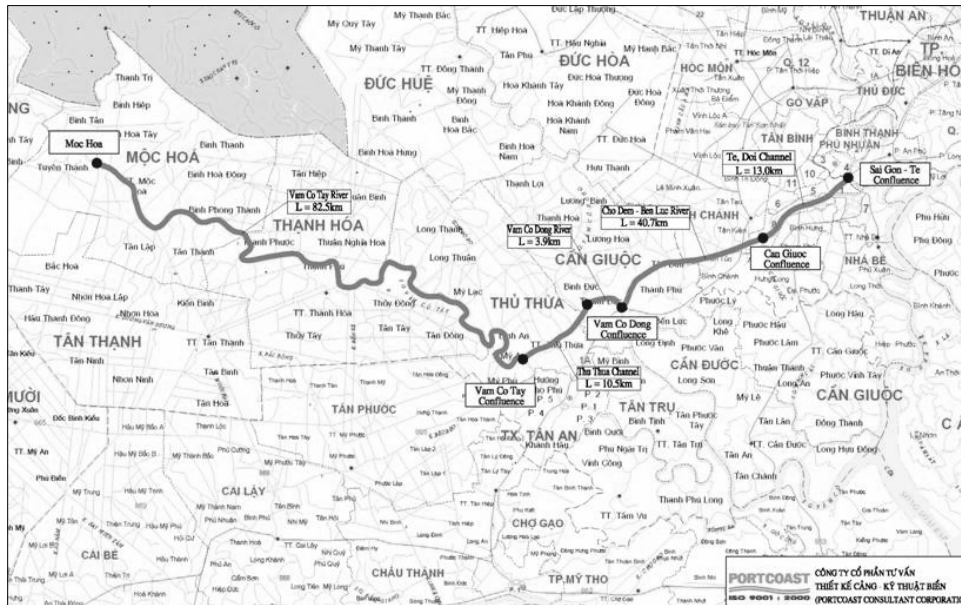


- Depth more than 1.5m

Figure 5C.15 Sai Gon–Moc Hoa Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S3-1	Sai Gon–Moc Hoa (Vam Co River)	96	mainly III & partially I	III	30–150	50–70	1.9–8.0	1.5	bridge	improvement: widening, removal of obstacles

(ii) Sai Gon–Ben Suc Route

Location

- Route from Sai Gon Port along Sai Gon River to Ho Dau Tieng Dam in Tay Ninh Province.
- This route lies on Sai Gon River with length of 89km.

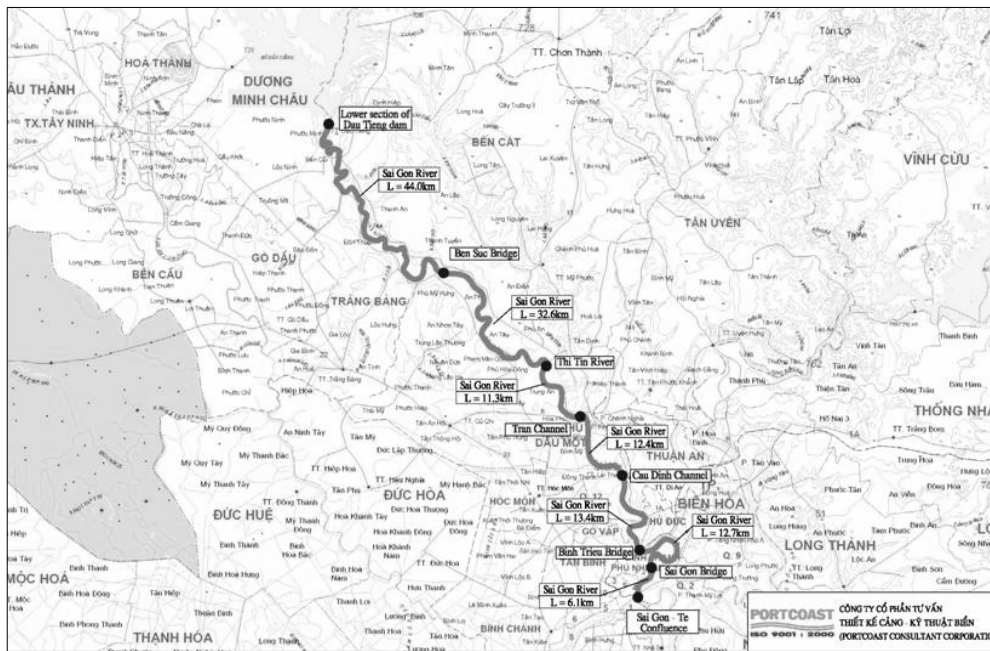
Main Role

- Connection between Binh Duong and Ho Chi Minh City.
- Port areas of Sai Gon, Ben Nghe and Tan Cang Ports and channel to Ha Tien cement factory (section from Te channel confluence to Thanh Da)
- Transportation of sand, gravel and wood from upstream to ports at Ho Chi Minh and Binh Duong provinces

Target

- Grade III
- Width 50–70m
- Depth more than 1.5m

Figure 5C.16 Sai Gon–Ben Suc Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S3-2	Sai Gon–Ben Suc (Sai Gon River)	89	I and III, partially II	III	70–200	50–70	2.5–13.2	1.5	bridge	improvement: removal of obstacles

(iii) Sai Gon–Ben Keo Route

Location

- Route between the northern area of Dong Thap Muoi with Ho Chi Minh City via rivers of Sai Gon, Nha Be, Soai Rap, Can Giuoc and Vam Co as well as Nuoc Man canal to Ben Keo on Vam Co Dong River with 165.7km in length

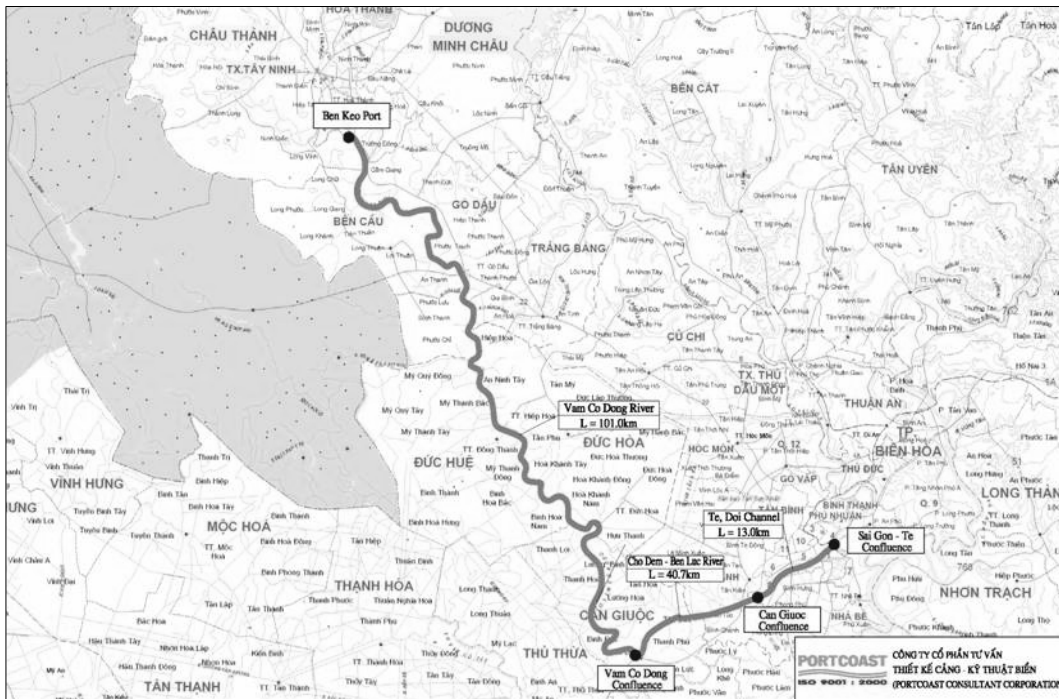
Main Role

- Connection of Tay Ninh and Long An, and Ho Chi Minh City and Mekong through Tay Ninh Province
- Transportation of wood and construction materials to Ho Chi Minh City
- Transportation of equipment for agriculture, goods for daily life and sugar-cane for Duc Hoa sugar refinery in Long An

Target

- Grade III
- Width 50–70m
- Depth more than 1.5m

Figure 5C.17 Sai Gon–Ben Keo Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S3-3	Sai Gon–Ben Keo (Vam Co Dong River)	166	I, II and III	III	40–150	50–70	4.8–8.0	1.5	bridge	improvement: widening, removal of obstacles

(iv) Sai Gon–Hieu Liem Route

Location

- Route from Sai Gon Port on Sai Gon River to Hieu Liem on Dong Nai River.
- All sections of this route lies on Dong Nai River with length of 98.8km.

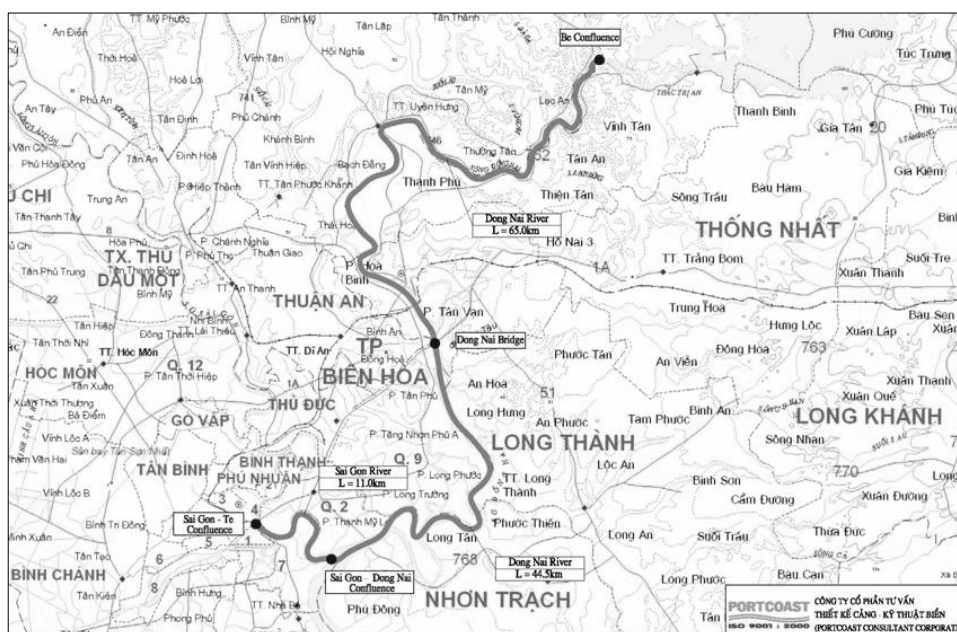
Main Role

- Connection between Sai Gon Port and Dong Nai Industrial area

Target

- Grade III
- Width 50–70m
- Depth more than 1.5m

Figure 5C.18 Sai Gon–Hieu Liem Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S3-4	Sai Gon–Hieu Liem (Dong Nai River)	88	mainly III & partially I	III	18–200	50–70	0.6–8.0	1.5	bridge	improvement: widening and deepening, removal of obstacles

(d) Waterways connecting Mekong Delta with gateway ports

(i) Mekong River Delta–Thi Vai–Vung Tau

Location

- Route from Thi Vai River or Go Gia River to Soai Rap River
- The route from Thi Vai River with total length of 60.5km connecting upstream of Thi Vai River and downstream of Soai Rap River via canals of Tac Ong Truc, Tac Nha Phuong, Tac Ong Trung and rivers of Dong Tranh, Long Tau, Dan Xay, Dinh Ba, Lo Ren and Vam Sat.
- The route from Go Gia River with total length of 61.3km via rivers of Go Gia, Tac Ong Cu, Tac Bai, Dong Tranh, Long Tau, Dan Xay, Dinh Ba, Lo Ren and Vam Sat.
- This route connects to Vung Tau via the sea area

Main Role

- Connecting of inland waterways in Mekong Delta with sea transport routes.
- Transportation of export/import goods from/to international gateway ports to/from Mekong Delta

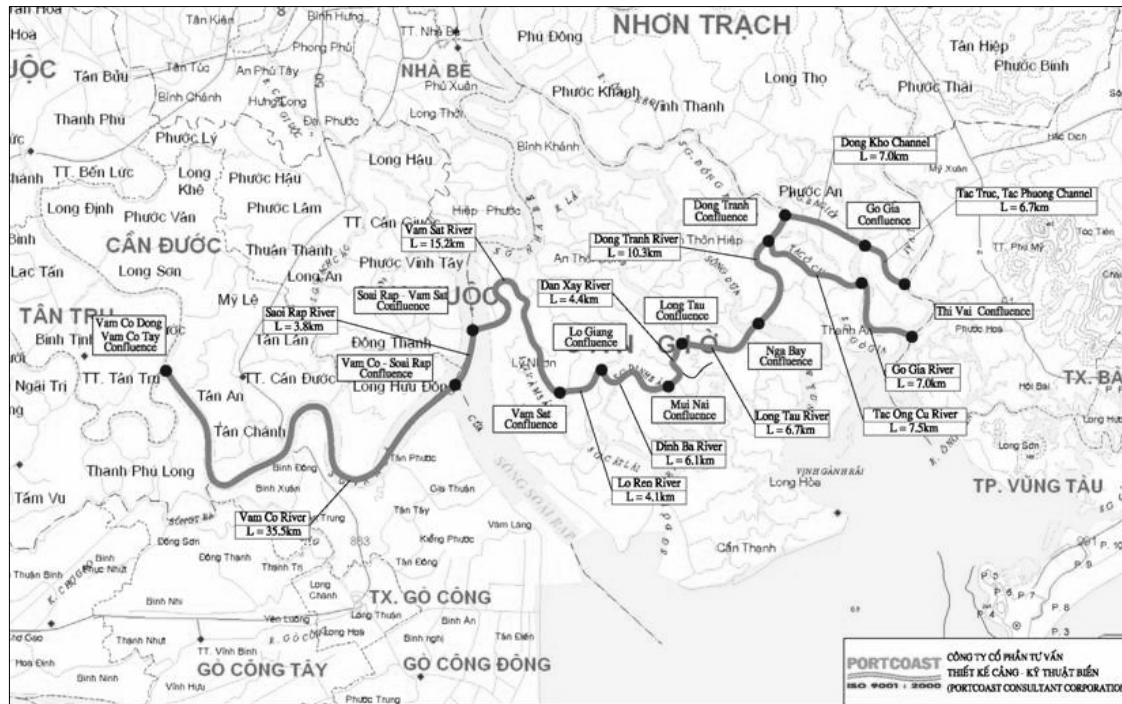
Target

Vung Tau Thi Vai

- Grade I
- Width 90m

- Depth more than 7m
- Thi Vai Mekong River Delta
- Grade III
 - Width 50–70m
 - Depth more than 1.5m

Figure 5C.19 Mekong River Delta–Thi Vai–Vung Tau



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S4-1	Vung Tau–Thi Vai-Mekong River Delta	75	I in the sea, and I, III and IV in waterway	III	40–500	50–70	1.6–11.5	1.5	bridge	improvement: widening, removal of obstacles

(e) Inland Waterways to Cambodia

(i) Cua Tieu–Cambodia Route

Location

- Route to the border with Cambodia via Cua Tieu
- This route is 222.6km long and completely lies on Tien River via My Tho Port, Cai Beo Canal and border between Vietnam and Cambodia.
- A section of 45km in length between Cua Tieu–My Tho is managed by Marine Department.

Main Role

- Route for vessels going to ports of Phnom Penh and Kong Pong Cham in Cambodia
- Direct connection between Mekong Delta and with outside areas through the sea

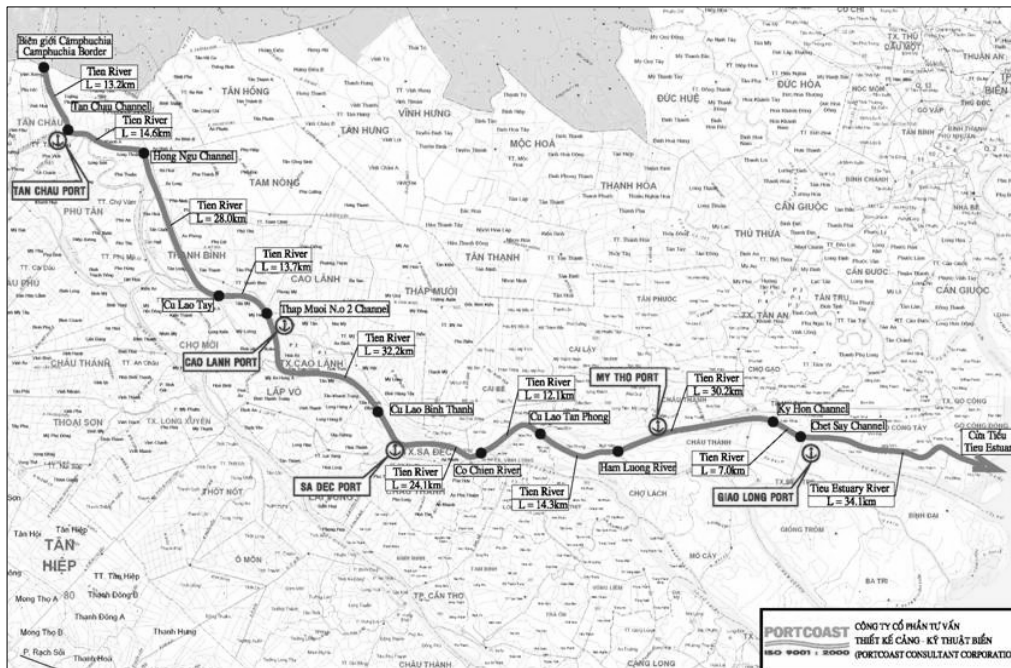
and Cambodia

- Transportation of construction materials, fertilizers and foods etc
- Low-cost transportation of goods between Mekong Delta with Ho Chi Minh, Dong Nai and Ba Ria Vung Tau Province

Target

- Grade I
- Width 90m
- Depth more than 7m

Figure 5C.20 Cua Tieu–Cambodia Route



No	Route	Length	Grade		width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S5-1	Cua Tieu–Cambodia	223	I	I	90–300	90	4.0–10.0	7		improvement: deepening

(ii) Dinh An Estuary–Tan Chau Route

Location

- Route from Tan Chau to Dinh An mouth, starting from Dinh An mouth via Dai Ngai (Soc Trang), Can Tho city, Long Xuyen city to Chau Doc (An Giang); total length from bouy 0 in Dinh An mouth to Chau Doc Town
- This is main route for vessels to ports on Hau River; along Vam Nao River to Cambodia and ports on Tien River via Mekong Delta River.

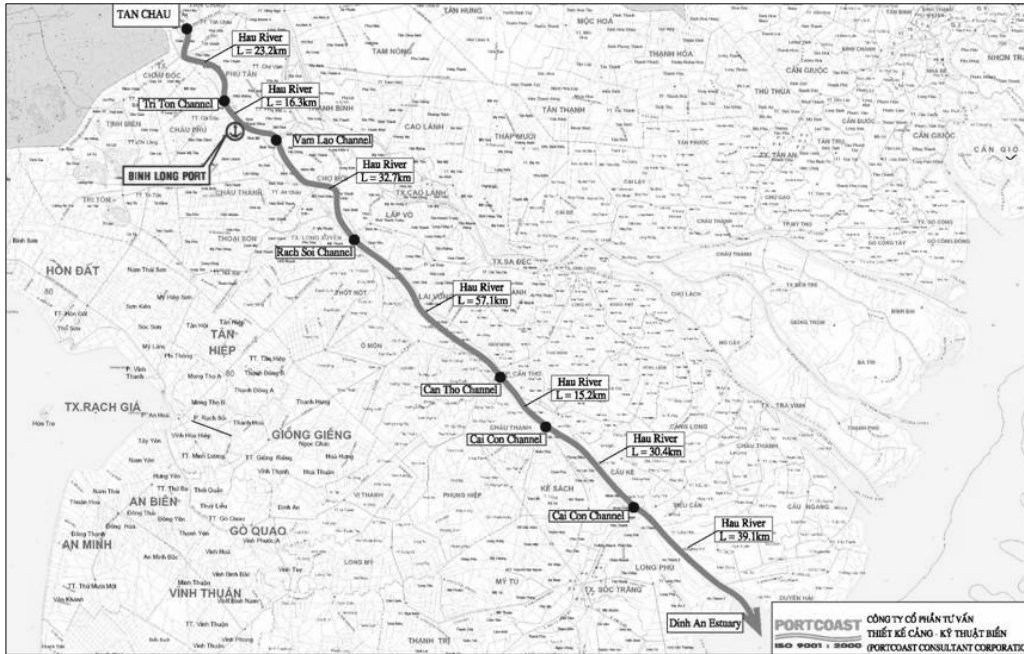
Main Role

- Main route for sea vessel approach to ports located at Mekong Delta such as Can Tho and My Thoi Port
- Route for vessels going to Cambodia.

Target

- Grade I
- Width 90m
- Depth more than 7m

Figure 5C.21 Dinh An Estuary–Tan Chau Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S5-2	Dinh An Estuary –Tan Chau	214	I	I	80–400	90	3.0–10.0	7	bridge	improvement: widening, removal of obstacles

(f) Waterways for Regional Connection

(i) Moc Hoa–Ha Tien

Location

- Route from Mộc Hóa to Hà Tiên with 183.5km long bordering Cambodia

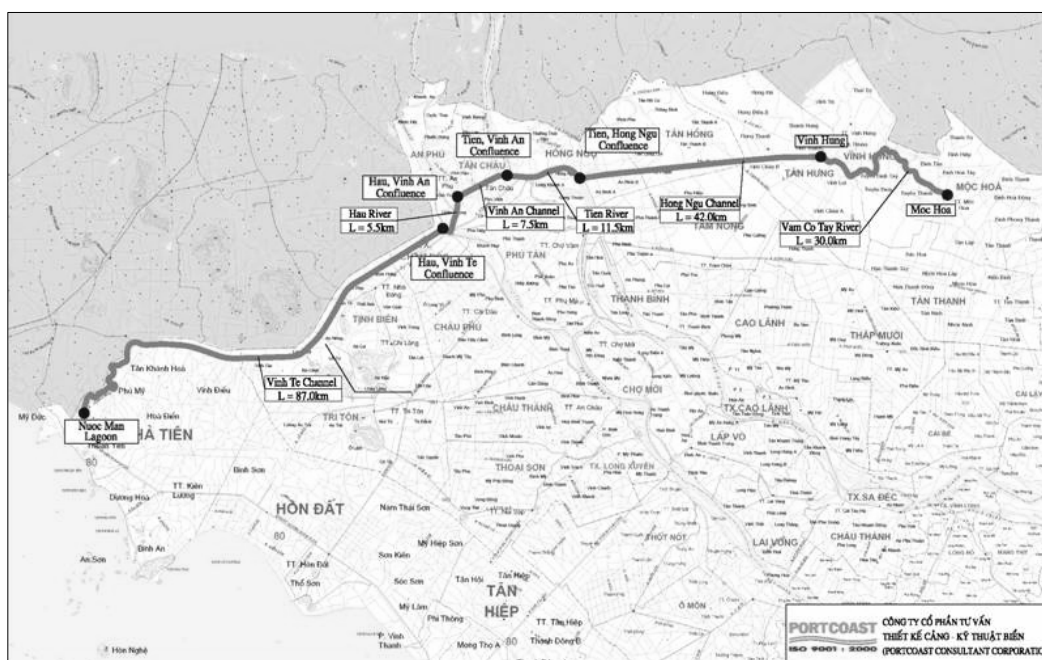
Role

- Support for economic development of remote areas along the border
- Contribution to flood retention

Target

- Grade IV
- Width 20–30m
- Depth more than 2m

Figure 5C.22 Moc Hoa–Ha Tien



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S6-1	Moc Hoa–Ha Tien	108	IV	IV	80–100	20–30	4.0–9.0	2		improvement: widening

(ii) Phuoc Xuyen – Tien River (canal 28)

Location

- Route from Hong Ngu confluence to Tien River with total length of 74.5km via canal of Phuoc Xuyen, 4 bis, Tu Moi and canal 28.

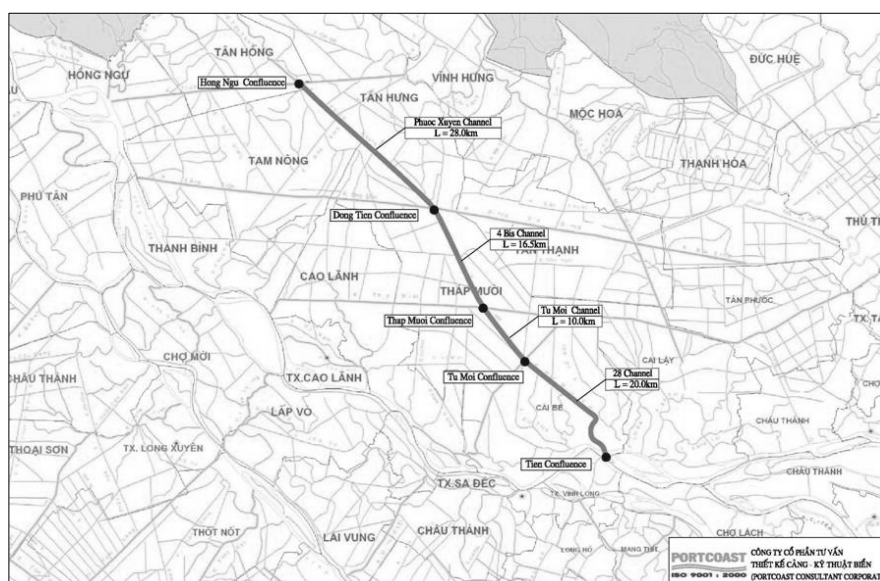
Main Role

- Regional transportation between Dong Thap Muoi and Tien River
- Contribution to flood control

Target

- Grade III
- Width 20–30m
- Depth more than 2m

Figure 5C.23 Phuoc Xuyen–Tien River (canal 28)



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S6-2	Phuoc Xuyen Canal—canal 28)	75	V	III	20.0	20–30	1.2	2	bridge	upgrading

(iii) Rach Gia–Ca Mau Route

Location

- Route of the western coastal transversal route from Rach Gia Town (Kien Giang) to Ong Doc River mouth in Ca Mau with the length of 149km passing canals of Don Giong, Ong Hien–Ta Nien, Tac Cau, Tan Bang Can Gao; Cai Be River, Trem Trem River to Ong Doc River mouth.

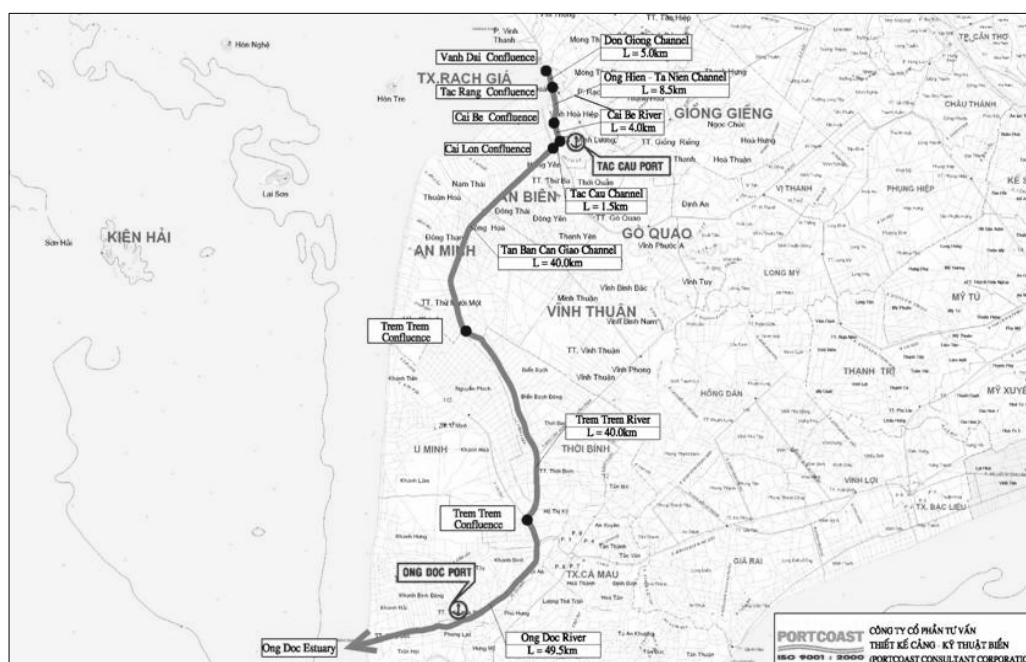
Main Role

- Linking the northern and southern longitudinal routes from Kien Giang to Ca Mau along Thai Lan Bay
- Support for economic development and reduction of poverty in remote areas

Target

- Grade III
- Width 50–70m
- Depth more than 1.5m

Figure 5C.24 Rach Gia–Ca Mau Route



No	Route	Length	Grade		Width		Depth		Obstacle	Project
			Present	Target	Present	Plan	Present	Plan		
S6-3	Rach Gia–Ca Mau	149	IV and V	III	20–50	50–70	2.0–6.0	1.5	bridge	upgrading

(3) Central Region

Due to geo-graphical conditions, inland waterway transport network has not formed in the Central area. Making use of advantages of environmentally friendly transportation means and low cost transportation for bulky cargo, inland waterway routes shall be formed.

Main routes and target grade of each route in the Central region are:

Lach Trao–Ham Rong (Ma River)	Class II	(Width: 50–70, Depth: >2)
Lach Sung–Len Bridge (Len River)	Class III	(Width: 50–70, Depth: >2)
Cua Hoi-Ben Thuy–Do Luong (Lam River)	Class II	(Width: 70–90, Depth: >2.5)
Cua Sot–Nghen Bridge (Nghen River)	Class III	(Width: 50–70, Depth: >2)
Cua Gianh–Quang Truong (square) (Gianh River)	Class II	(width: 70–90, Depth: >2.5)
Nhat Le Estuary–Long Dai Bridge (Nhat Le River)	Class III	(Width: 50–70, Depth: >2)
Cua Viet–Dap Tran (spillway) (Thach Han River)	Class III	(Width: 50–70, Depth: >1.5)
Thuan An–Tuan T–junction (Huong River)	Class III	(Width: 50–70, Depth: >1.5)
Hoi An–Cua Dai (Thu Bon River -extended)	Class III	(Width: 50–70, Depth: >2)
	Class I	(Width: >90, Depth: >3)
Ky Ha Estuary–Hoi An –Vinh Dien T–junction–Cua Han (Truong Giang River, Thu Bon		

River, Vinh Dien River, Han River, coastal)

Class III (Width: 50–70, Depth: >2)

Class III (Width: 50–70, Depth: >1.5)

:

Class III (Width: 50–70, Depth: >1.5)

2) Port Projects

(1) Northern Region

(i) Cargo Ports

Cargo port system in the northern region consists of forty one (41) ports: one port for accommodation of 3,000DWT vessels, seven ports for 1,000DWT, thirteen ports for 400–600DWT vessels and twenty ports for 200DWT–300DWT vessels.

Table 5C.1 Cargo Port System in the North

Vessel Size (DWT)	Port		Province	River	Capacity (10 ³ ton/y)
3,000	Ninh Phuc Port		Ninh Binh	Day River	
1,000	Hanoi Port		Ha Noi	Hong River	500
	Kuyen Luong Port		Ha Noi	Hong River	1,680
	Ninh Binh Port		Ninh Binh	Day River	2,500
	Hung Yen Port		Hung Yen	Hong River	350
	Me So Port		(Hung Yen	Hong River	350
	Nam Dinh Port	(New)	Nam Dinh	Nam Dinh River	1,000
	Tan De Port	(New)	Thai Binh	Traly River	200
	Viet Tri Port		Phu Tho	Lo River	2,500–3,000
	Phu Dong Port		Ha Noi	Duong River	1,100
	Nhu Trac Port		Ha Nam	Hong River	200
	Cong Cau Port		Hai Duong	Thai Binh River	500
	So Dau Port		Hai Phong	Cam River	1,500
	Thai Binh Port		Thai Binh	Hong River	500
400–600	Chem Port		Hanoi	Hong River	400
	North Hanoi Port	(New)	Hanoi	Hong River	2,000
	Vinh Thinh Port		Vinh Phuc	Hong River	500
	Nhu Thuy Port		Vinh Phuc	Hong River	500
	Trieu Duong Port		Hung Yen	Luoc River	300
	Hong Van Port		Ha Tay	Hong River	300
	Cauyen Port		Ninh Binh	Day River	200
	Hoa Binh Port		Hoa Binh	Da River	550
	Da Phuc Port		Thai Nguyen	Cau River	700
	Son Tay Port		Ha Tay	Hong River	400
	Chu Phan Port		Vinh Phuc	Hong River	800
	Duc Bac Port		Vinh Phuc	Lo River	500
	Dap Cau Port		Bac Ninh	Cau River	500
	A Lu Port		Bac Giang	Thuong	600
	Duc Long Port		Bac Ninh	Duong	300
	Ben Ho Port		Bac Ninh		300
200-300	Kenh Vang Port		Bac Ninh		300
	Luc Cau Port		Lao Cai	Hong River	120
	Van Phu Port		Yen Bai	Hong River	200
	Ngoc Thap Port		Phu Tho	Lo River	150
	An Dao Port		Phu Tho	Hong River	800
	Tuyen Quang Port		Tuyen Quang	Lo River	300

Vessel Size (DWT)	Port		Province	River	Capacity (10 ³ ton/y)
	Ta Bu Port		Son La	Da River	200
	Ta Hoc Port		Son La	Da River	200
	Van Yen Port		Son La	Da River	150
	Ba Cap Port		Hoa Binh	Hoa Binh Lake	250
	Ben Ngoc Port		Hoa Binh	Hoa Binh Lake	300

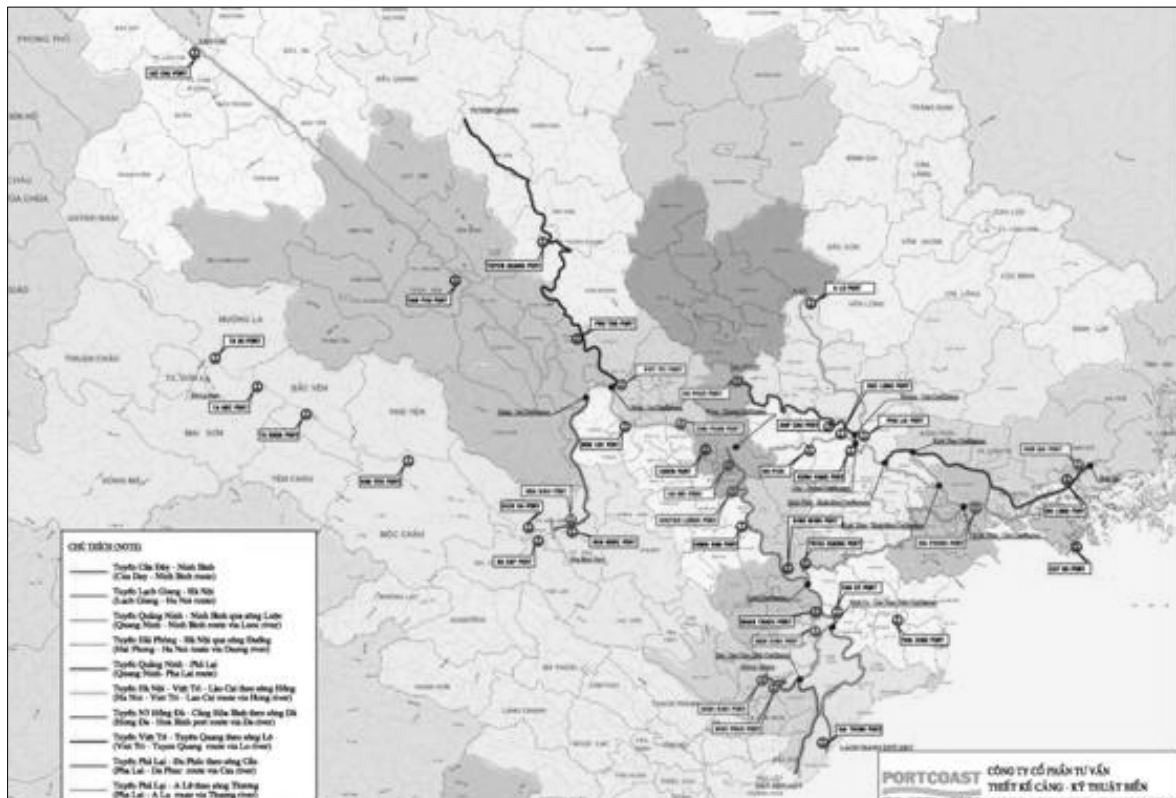
(ii) Passenger Ports

Passenger port system in the north consists of six (6) ports: Four ports for accommodation of 150-200seats passenger vessels and two ports for 100 seats.

Table 5C.2 Passenger Port System in the North

Vessel Size (Seat)	Port	Province	River	Capacity (10 ³ ton/Y)
150 200	Hai Phong Port	Hai Phong	Cau River	
	Thai Binh Port	Thai Binh	Tra Ly River	100
	Cat Ba Port	Quang Ninh	Cat Ba Isand	200
	Ha Long Port	Quang Ninh	Holong Bay	400
100	Ha Noi Port	Hanoi	Hong River	322
	Hung Yen Port	Hung Yen	Hong River	100

Figure 5C.25 Location of Ports in the Northern Region



(2) Southern Region

(i) Cargo Ports

Cargo port system in the south consists of twenty six (26) ports: Four Ports for accommodation of 5,000DWT vessels, two for 3,000DWT, three for 2,000DWT, nine for 1,000DWT,

eight for 300DWT–500DWT

Table 5C.3 Cargo Port System in the South

Vessel Size (DWT)	Port		Province	River	Capacity (10 ³ ton/Y)
5,000	TRACOMECO Port		Duong Nai	*****	1,000
	Nhon Trach Port		Duong Nai	Nha Be River	1,000
	Tin Nghia Port		Duong Nai		2,000
	Ha Duc Port		Duong Nai		1,500
	Phu Dinh Port		HCM City		500
3,000	Nhon Duc Port		HCM City	Nha Be River	500
	Long Binh Port		HCM City	Dang Nai River	500
	Ba Ria Port		Ba Ria-Vung Tau	Dinh River	500
2,000	Tan Chau Port	(New)	An Giang	Tien River	500
	Ba Lua Port		Binh Duong	Sai Gon River	500
	Ben Suc Port		Binh Duong	*****	2,000
	Long Duc Port		Tra Vinh	Channel	400
	Giao Long Port		Ben Tre	Tien Estuary	300
	An Phuoc Port		Vinh Long	Co Chien River	300
1,000	Binh Long Port		An Giang	Hau River	3,000
	Tac Cau Port		Kien Giang	Vaum Cong River	400
	Ho Phong Port	(New)	Bac Lieu	Xang Ca Mau Bac Lien River	500
	Ong Doc Port	(New)	Ca Mau	Ong Doc Estuary	400
	Binh Duong Port		Binh Duong	Sai Gon	300
	Ben Keo Port		Tay Ninh	Vam Co Dong	300
	Tan An Port	(New)	Long An	Vam Co Tay	500
	Vi Thanh Port	(New)	Hau Giang	Xang Xa No	500
300–500	Bac Lieu Port	(New)	Bac Lieu	Xang Ca Mau–Bac Lien River	200
	Long Hung Port		Soc Trang	Phung Hup River	300
	Nga Nam Port		Soc Trang	Phung Hup River	300
	Cai Con Port		Soc Trang	Rach Cai Con River	300

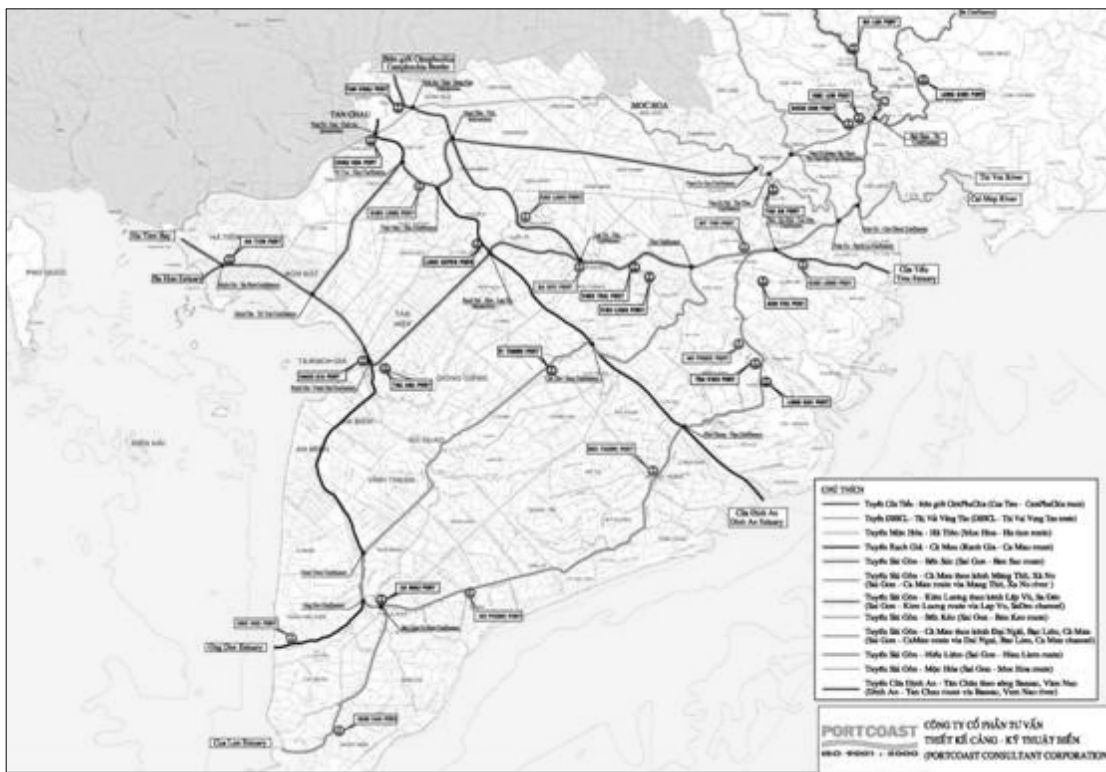
(ii) Passenger Ports

Passenger port system in the south consists of fifteen (15) ports for accommodation of 100 seats passenger vessels

Table 5C.4 Passenger Port System in the South

Vessel Size (Seat)	Port		Province	River	Capacity (10 ³ ton/Y)
100	Cau Da Port		Bria-Vtau	Ganh Rai Bay	800
	Tan An Port		Long An	Vain Co Tay	800
	My Tho Port		Tien Giang	****	1,500
	Cao Lanh Port		Dong Thap	****	1,000
	Tra Vinh Port		Tra Vinh	Co Chiu River	800
	Vinh Long Port		Vinh Long	Tien River	1,000
	Ben Tre Port		Ben Tre	Ben Tre River	2,000
	Long Xuyen Port		An Giang	Hau River	800
	Chau Doc Port		An Giang	Hau	800
	Rach Gia Port		Kien Giang	Rach Gia Long Xuyen River	800
	Ha Tien Port		Kien Giang	Ha Tun Bay River	500
	Soc Trang Port		Soc Trang	****	1,500
	Bac Lieu Port		Bac Lieu	Xang Ca Mau Bau Lieu River	3,000
	Ca Mau Port		Ca Mau	Xang Ca Mau Bau Lieu River	4,000
	Nam Can Port		Ca Mau	Cua Lon River	1,500
Ong Doc Port		Ca Mau	Ong Doc River	1,500	

Figure 5C.26 Location of Ports in the Southern Region



(3) Central Region

Cargo port system in the central consists of six (6) ports such as four ports for accommodation of 1,000DWT vessels, two for 300DWT–400DWT.

Table 5C.5 Cargo Port System in the Central

Vessel Size (DWT)	Port		Province	River	Capacity (10 ³ ton/Y)
1,000	Ho Do Port	(New)	Ha Tinh	Ha Vang River	1,000
	Hoi An Port		Quang Nam	Vu Gra Estuary	1,000
	Do Len Port		Thanh Hoa	Na River	1,000
	Quang Phuc Port		Quang Binh	Grash Estuary	600
300 400	Quang Thung Port		Quang Binh	Ron Estuary	500
	Dong Ha Port		Quang Tri	Thach Han River	200

3) Landing Stages

Many landing stages which local people can use in any time safely are located in delta area widely supporting daily lives and local industries. They shall be maintained in good conditions and managed and operated appropriately under regulation.

4) Safety

All vessels can navigate waterways safely and smoothly according to regulations supported by navigation aids in every hours and seasons. Ports and landing stages provide modern facilities for users including passengers to use safely and easily.

(i) Waterways

- Securing required dimensions of channels throughout a respective route
- Removal of obstacles in navigation routes
- Measures for safe navigation in crowded water area
- Installment of necessary navigation aids and appropriate maintenance

(ii) Port

- Construction of port facilities satisfying the structural standards and appropriate maintenance
- Enhancement of safety of port facilities for passenger
- Improvement of landing stage enhancing safety

(iii) Vessels

- Operation of vessels of satisfying standards
- Fostering necessary numbers of crew

(iv) Organizations

- Research and rescue system
- Fostering necessary numbers of administrators

5) Inland Waterway Business

Efficient and low-cost transportation service shall be provided by private parties who develop such business as shipbuilding, vessel operation, port operation and tourism business.