Japan International Cooperation Agency (JICA)

NO.

Final Report

The Study for Development of the Greater Jakarta Metropolitan Ports in the Republic of Indonesia

Main Report Volume-4
Feasibility Study

December 2003

The Overseas Coastal Area Development Institute of Japan (OCDI)
Pacific Consultants International (PCI)

S S F
J R
03-151

Exchange Rate

1USDoller=8,500Rupiah=120Yen

(As June 2003)

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Tanjung Priok Port (2025)

Tanjung Priok Port (2012)

Bojonegara Port (2025)

Bojonegara Port (2012)

PREFACE

In response to a request from the Government of the Republic of Indonesia (hereinafter referred to as "GOI"), the Government of Japan decided to conduct a Study for the Greater Jakarta Metropolitan Ports in the Republic of Indonesia and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team to Indonesia four times between March 2002 and October 2003, which was headed by Mr. Hidehiko Kuroda of the Oversea Coastal Area Development Institute of Japan (OCDI) and was comprised of OCDI and Pacific Consultants International, Ltd (PCI).

The team held discussions with the officials concerned of the GOI and conducted the field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of GOI for their close cooperation extended to the team.

November 2003

Kazuhisa Matsuoka

Vice President

Japan International Cooperation Agency

LETTER OF TRANSMITTAL

November 2003

Mr. Kazuhisa Matsuoka
Vice President
Japan International Cooperation Agency

Dear Mr. Matsuoka:

It is my great pleasure to submit herewith the Final Report of "The Study for Development of the Greater Jakarta Metropolitan Ports in the Republic of Indonesia".

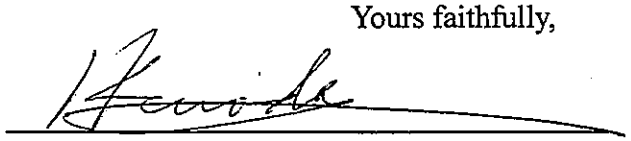
The study team comprised of the Overseas Coastal Area Development Institute of Japan (OCDI) and Pacific Consultants International (PCI) conducted surveys in the Republic of Indonesia over the period between March 2002 and October 2003 according to the contract with the Japan International Cooperation Agency (JICA).

The study team compiled this report, which proposes the future development scenario for the Greater Jakarta Metropolitan ports and Master Plans and Short-term Plan of Tanjung Priok Port and Bojonegara new port up to 2025 and 2012 respectively, together with the feasibility study on urgent project for both pots, through close consultations with officials of the Ministry of Communications of the Indonesian Government and other authorities concerned.

On behalf of the study team, I would like to express my heartfelt appreciation to the Ministry of Communications and other authorities concerned for their cooperation, assistance, and heartfelt hospitality extended to the study team.

I am also greatly grateful to the Japan International Cooperation Agency, the Ministry of Foreign Affairs, the Ministry of Land, Infrastructure, and Transport, and the Embassy of Japan in Indonesia for valuable suggestions and assistance during the course of the study.

Yours faithfully,



Hidehiko KURODA
Team Leader
The Study for Development of the Greater Jakarta Metropolitan Ports in the Republic of Indonesia

LIST OF ABBREVIATIONS

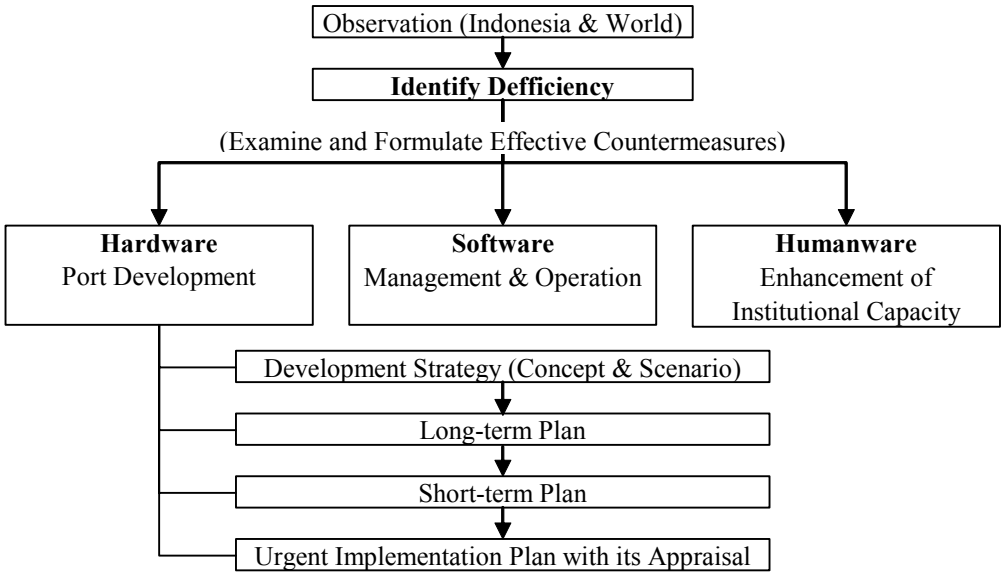
A	ADPEL	Port Administrator Office
	AFTA	ASEAN Free Trade Area
	AMDAL	Environmental Impact Assessment
	ADB	Asian Development Bank
	ASEAN	Association of South East Asian Nations
B	BAPEDAL	Environmental Impact Management Agency
	BAPEDALDA	Brunch Office of BAPEDAL
	BAPPEDA	Provincial Development and Planning Board
	BAPPENAS	National Development Planning Agency
	BCH	Box/Crane/Hour
	B/C	Benefit/Cost
	BKPM	Investment Coordination Board
	BOD	Biological Oxygen Demand
	BOR	Berth Occupancy Ratio
	BOT	Build-Operate-Transfer
	BPS	Central Bureau of Statistics
	BPPN	International Bank of Reconstruction and Development
	BT	Berthing Time
	BUMN	State Owned Company
C	CFS	Container Freight Station
	COD	Chemical Oxygen Demand
D	DGLC	Directorate General of Land Communication
	DGH	Directorate General of Highways
	DGSC	Directorate General of Sea Communication
	DO	Dissolved Oxygen
	DTV	Daily Traffic Volume
E	EDI	Electric Data Interchange
	EIA	Environmental Impact Assessment
	EIRR	Economic Internal Rate of Return
	ET	Effective Time (at Berth)
F	FCL	Full Container Load
	FTA	Free Trade Area
	FIRR	Financial Internal Rate of Return
	FDI	Foreign Direct Investment
G	GBHN	Broad Outlines of the Nation's Direction
	GDP	Gross Domestic Product
	GOI	Government of Indonesia
	GOJ	Government of Japan
	GRDP	Gross Regional Domestic Product
	GT	Gross Tonnage

H		
I	IAPH	International Association of Ports and Harbors
	IBRD	International Bank of Reconstruction and Development
	IDB	Islamic Development Bank
	IEE	Initial Environmental Examination
	IMF	International Monetary Fund
	IMTN	Indonesia Medium Term Notes
	INSA	Indonesian National Ship Owner Association
	IPC	Indonesia Port Corporation
J	Jabotabek	Jakarta, Bogor, Tangerang and Bekasi area
	JBIC	Japan Bank for International Cooperation
	JICA	Japanese International Cooperation Agency
	JICT	Jakarta International Container terminal
	JKT	Jakarta
	JO	Joint Operation
	JORR	Jakarta Outer Ring Road
	JV	Joint Venture
K	KANPEL	Port Administration Office (Non-commercial Port)
	KANWIL	Provincial Office of a Central Ministry
	Keppres	Presidential Decree
	Kimpraswil	Ministry of Settlements and Regional Development
	KM	Ministerial Decree
	KSO	Kerjasma Operasi (Joint Operation)
L	LCL	Less then Container Load
M	MENEG LH	State Ministry for Environment
	MOC	Ministry of Communication
	MOF	Ministry of Finance
	MOSOE (MOSOC)	Ministry of State-Owned Enterprises (Companies)
	M(O)SRD	Ministry of Settlements and Regional Development
N	NGOs	Non Government Organizations
	NPS	National Port System
	NPV	Net Present Value
O	OD	Origin and Destination
	ODA	Official Development Assistance
P	PCC	Pure Car Carrier
	PCU	Passenger Car Unit
	PELINDO	Indonesia Port Corporation
	PELNI	Indonesian National Shipping Company
	PERSERO	State-Owned Company

	PERUM ASDP	State-Owned Inland Waterways & Ferry Company
	pH	Hydrogen ion concentration
	PIANC	Permanent International Association of Navigation Congress
	PJP Ⅱ	The Second Long Term Development Plan
	PM10	Particular matter less than 10 μ m
	PP	Government Regulation
	PPKB	Permintaan Pelayanan Kapal dan Barang (The Demands of Ship and Good Services)
	PPSA	One Roof Port Service Center
	PROPENAS	National Development Policy
	PRT	Port Related Traffic
	PSA	PSA Company (changed from Port of Singapore Authority)
	PSP	Private Sector Participation
	PT.	Limited Company
	PT.RUKINDO	Indonesia Dredging State Limited Company
R	REPELITA	National Five-year Development Plan
	REPELITADA	Local Five-year Development Plan
	RKL	Environmental Management Plan
	Rp.	Rupiah
	RPL	Environmental Monitoring Plan
	RTRW	Spatial Use Plan
	RTG	Rubber Tire mounted Gantry
S	SIMOPPEL	Port Operation Management Information System
	SOLAS	International Convention on Safety of Life at Sea
	SOR	Shed Occupancy Ratio
	SPM	Suspended Particle Matter
	SS	Suspended Solid
T	TEU	Twenty Foot Equivalent Unit
	THC	Terminal Handling Charge
	TGH	Ton/Gang/Hour
	TOR	Term of Reference
	TTV	Through Traffic Volume
U	UNCTAD	United Nations Conference on Trade and Development
	UU	Law
W	WB	World Bank
Y	YDT	Yard Dwelling Time
	YOR	Yard Occupancy Ratio

Executive Summary -Conclusion and Recommendation-

1. The study for "Development of Greater Jakarta Metropolitan Ports", was implemented following the procedure hereunder:



2. Conclusions and recommendations of the study are given below.

A. Identified Deficiencies

3. Tanjung Priok port now functions as the largest trading port in the Western Java area. However, its physical figure is almost the same as it was in the Dutch colonial era and the port productivity has been gradually deteriorated compared to major ASEAN ports. This will let the port's function paralyzed in near future, and which will surely depress the investment climate especially for foreign investors. As a result, global companies will likely withdraw from this area and Indonesian products will lose competitiveness in the international market, especially in the ASEAN market.

4. The critical issue now facing the existing Tanjung Priok port are as follows, which are summarized in "being unable to meet the port users' needs":

- Lack of speedy and credible cargo transit through the port
- Lack of safe and secure cargo handling
- Lack of available port facilities and space to accommodate the cargo demand
- Lack of fair and transparent dues and charge

5. The study team identified the causes of this unfavorable situation as follows:

- Limited capacities on ship navigation, land space and inland transport
- Low efficiency/productivity of cargo handling due to capacity constraints and disorderly land use

- Institutional defectiveness in trade facilitation such as inefficient customs clearance, inefficient and inflexible terminal operating system, ineffective EDI system etc.

6. The study team strongly proposes DGSC and IPC-II to duly and continuously follow up and monitor these problems through the collection and observation of accurate data and information.

B. Hardware –Development of the Ports–

7. The study team examined cargo trends and the development potential of the ports, set the port development goal and strategy for ports in the Western Java area and formulated the master plan and the short-term development plan both for Tanjung Priok and Bojonegara. In addition, the study team selected the priority projects for urgent implementation and assessed the viability of the projects both for Tanjung Priok and Bojonegara.

B-1 Development Strategy

Development Targets of Jakarta Metropolitan Ports

- To make the Greater Jakarta Metropolitan port function as a **"Logistic Center" in ASEAN regions** in order to maintain and enhance the competitiveness of Indonesian industry in the region by providing an attractive business /investment environment.
- To make the Greater Jakarta Metropolitan port function as a **Regional Hub Port"** not only attracting international trunk lines but also linking them to domestic/inter-island lines

Development Focus

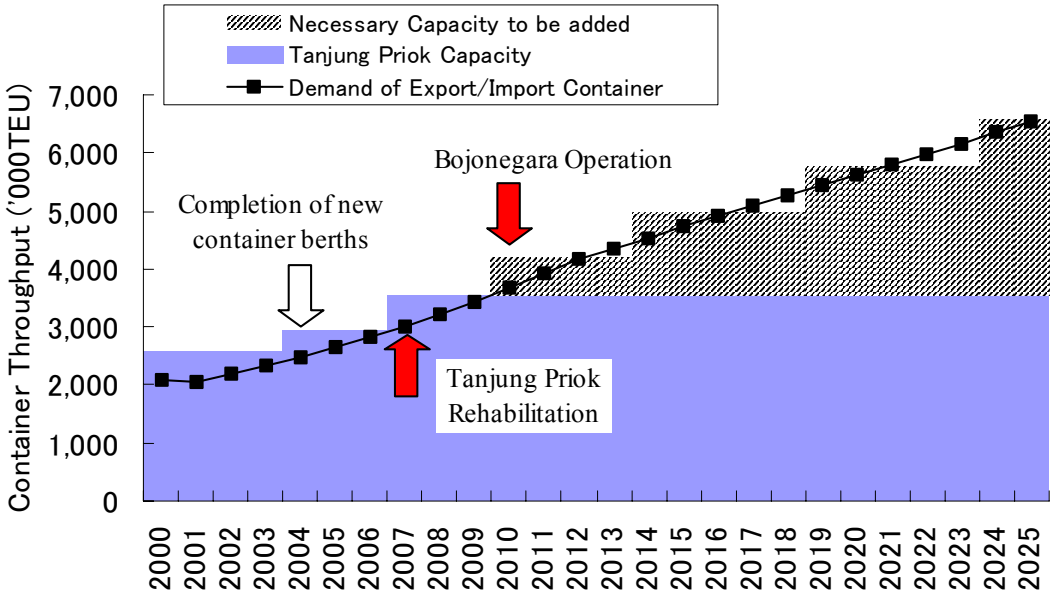
8. In order to achieve the above development targets, the following points should be focused on:

- Best use of the existing facilities
- User friendliness of port facilities
- Strategic port development and management
- Environmental friendliness

Development Scenario

9. The proposed development scenario is as follow:

- To increase the port capacity of Tanjung Priok by its urgent rehabilitation up to 2008 with maximum use of the existing port facilities, which will increase the international container handling capacity of the port up to 3.6~3.8 million TEUs against the current capacity of around 3 million TEUs
- To develop a new container handling port in Bojonegara by 2010 as a twin port of Tanjung Priok, considering the following points:
  - Spatial constraints for new development in the existing Tanjung Priok port and huge cost for new development outside Tanjung Priok port
  - Avoiding intensive concentration of cargo traffic especially large container trailers on the roads of the metropolitan area.



Demand and Capacity (International Container)

Functional Allotment

10. Basic functions of Tanjung Priok port and Bojonegara new port are set as follows, based on the development target and their potentials:

- Tanjung Priok
  - Principal international gate-way port supporting industrial development in Western Java area
- Bojonegara
  - Complementary gate-way port of Tanjung Priok
  - Basic and strategic logistic infrastructure for regional development of Banten

11. Functional allotment among the Ports in the Western Java Area is summarized as follows:

Summary of Functional Allotment among the Ports in the Western Java Area

	Tanjung Priok	Bojonegara	Ciwandan	Merakmas	Merak	Cirebon
Export/Import Container	+++	+++	+	+	-	+
Domestic Container	+++	+	-	-	-	-
Transshipment Container	++	++	-	-	-	-
Conventional Cargo	+++	+++	+++	+	-	+++
Passenger	+++	-	-	-	+++	-
Ro-Ro Cargo	++	++	-	-	+++	-
Car Cargo	+++	+	-	-	-	-

+++: indicates principal ports
++: indicates ports which may become principal ports in future
+: indicates ports which may handle a small portion of cargo in future
-: indicates that cargo will not be handled

B-2 Master Plan and Short Term Development Plan

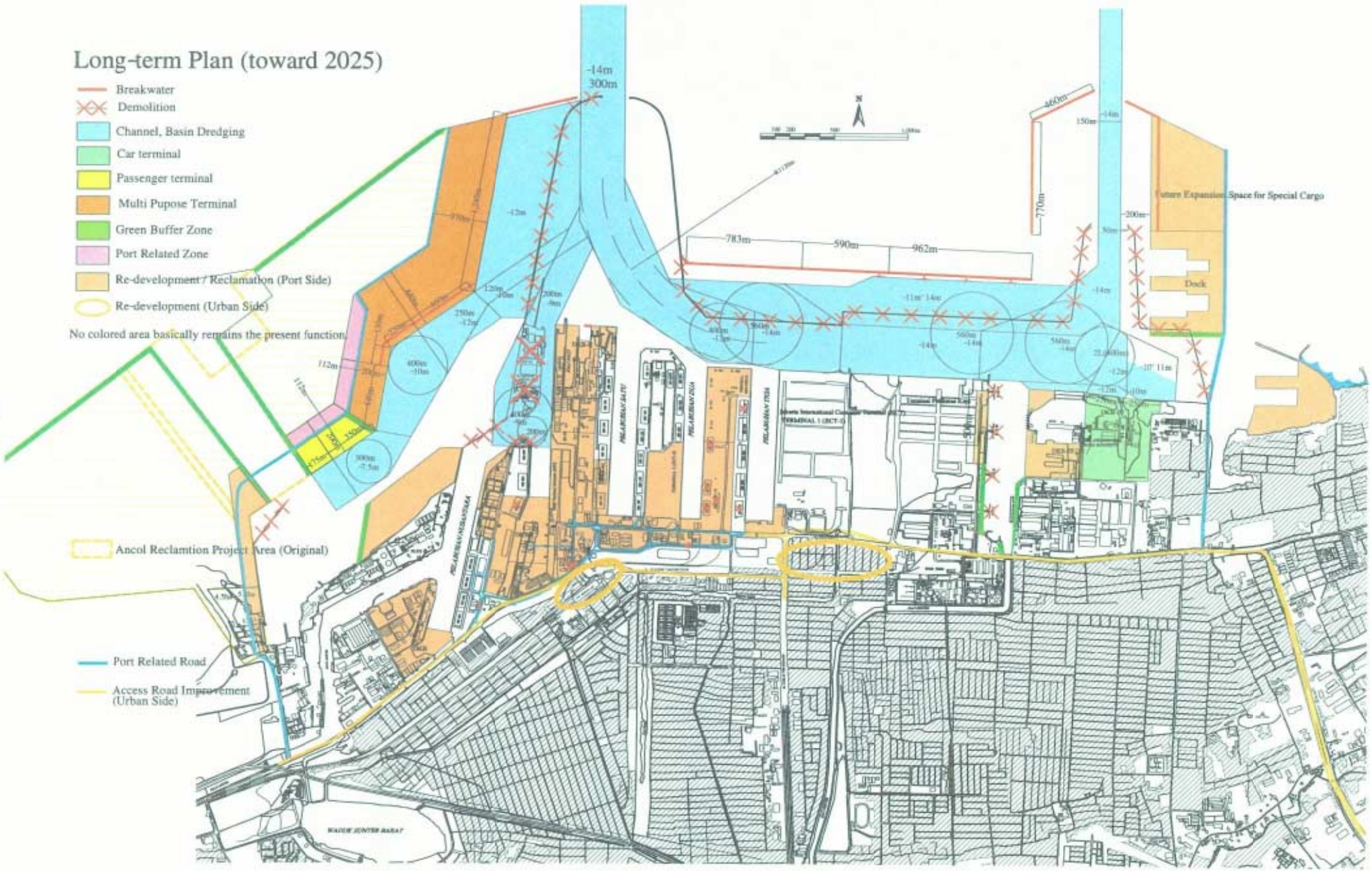
Development Concepts

12. Recognizing the strength and the weakness of each port, the study team sets the following development targets and project concepts.

	Development Concepts	*Project Concepts*
Tanjung Priok	✓ To increase the port capacity/productivity ✓ To ensure safety and security of the port ✓ To meet the port users' needs and to provide appropriate services ✓ To consider environment-friendly development	✓ Navigational Condition Improvement (in terms of Capacity & Safety) ✓ Automobile Terminal Development ✓ Re-organizing Land-use of the Existing Port ✓ Development of new port area to accommodate functional relocation from the existing port as well as future demand ✓ Road Improvement/development in/around the port ✓ Ecological Area Development
Bojonegara	✓ To establish high grade, world standard international container terminal ✓ To attract cargo by providing competitive services ✓ To consider environment-friendly development	✓ Development of new Container Terminal with Related Port Facilities ✓ To provide good access to/from the port ✓ To enhance regional industrial development and ensure sufficient coordination with new port development ✓ To minimize the impact of port development on the surrounding environment

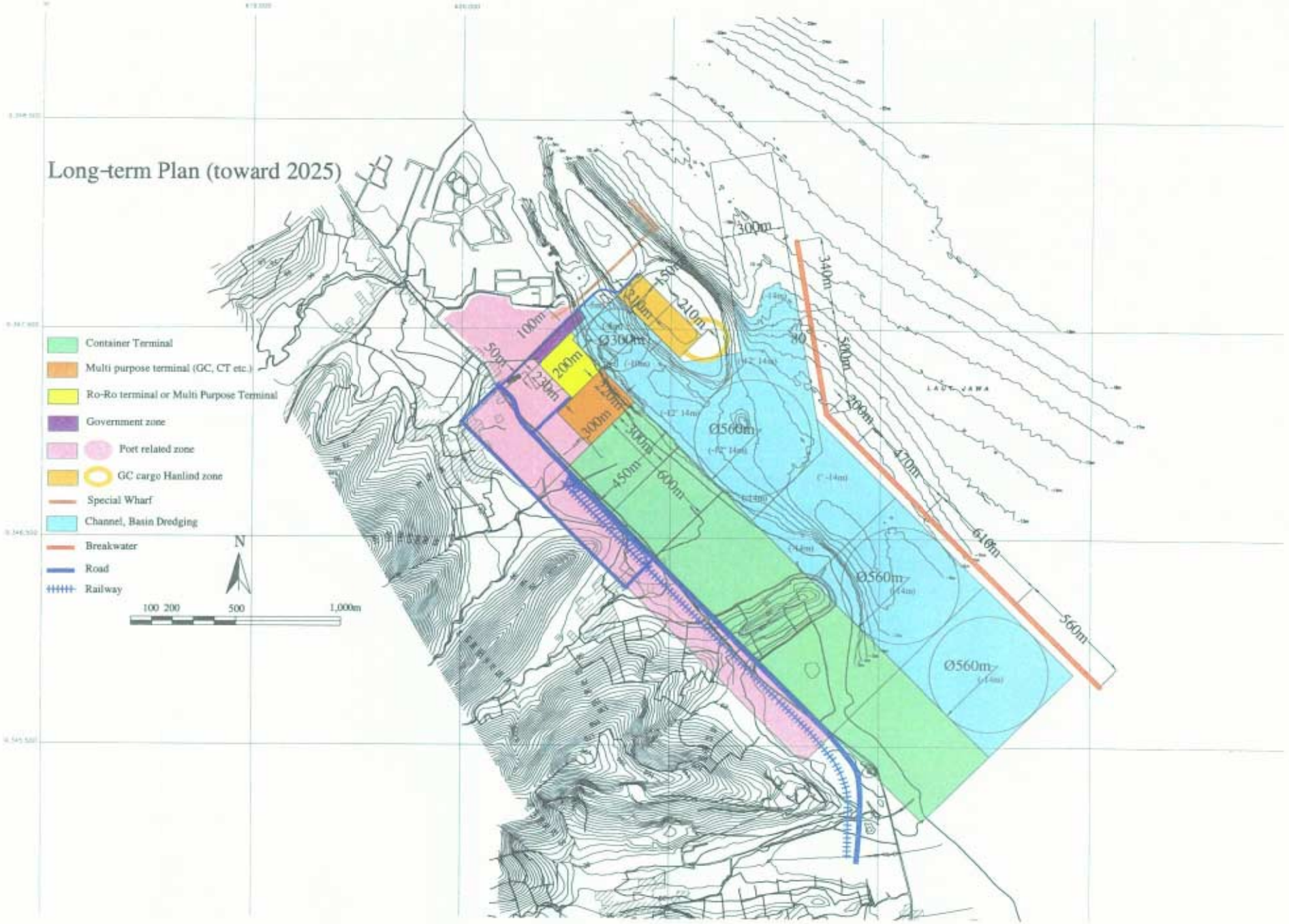
Project Components

13. The following project components are recommended to be implemented toward 2025, while projects indicated by bold type are proposed to be developed in the short-term toward 2012.


Long-term Plan (toward 2025)
Breakwater
Demolition
Channel, Basin Dredging
Car terminal
Passenger terminal
Multi Pupose Terminal
Green Buffer Zone
Port Related Zone
Re-development / Reclamation (Port Side)
Re-development (Urban Side)
No colored area basically remains the present function.
Ancol Reclamtion Project Area (Original)
Port Related Road
Access Road Improvement (Urban Side)
-14m
300m
783m
590m
962m
770m
460m
150m
200m
50m
Future Expansion Space for Special Cargo
Dock
-11m
-14m
-12m
-10m
N

(E-5)

Long-term Plan (toward 2025)



Tanjung Priok

Project Concepts		Contents	Remarks
Navigational condition improvement (to increase the capacity together with maintaining navigational safety)		- Widening main channel (300m) & turning basin	Short-term
		- Widening the channel & basin to the Nusantara area together with military relocation	Short-term
		- Opening the east channel to accommodate larger vessels	
Automobile terminal development (1 berth in the short term, 2 berth in the long term)			Short-term
Re-organizing land-use of the existing port			
	Streamlined cargo handling zone	- Inter-island container handling (Pier III reorganization and MTI expansion)	Short-term
		- Bulk cargo handling (CPO, sand, cement etc.)	Short-term
		- Passenger terminal relocation	Short-term
		- Pertamina berths relocation together with consolidation of international container terminal	
	Providing suitable and sufficient space for better port management	- Yard Development	Short-term
		- Reclamation of a part of Nusantara basin	Short-term
		- Consolidation of ship building yard	
		- Relocation of military base	Short-term
	Land-use re-development in the urban area adjacent to the port	- Re-development around the Tanjung Priok railway station	Short-term (Urban side)
		- Re-development of the residential area to the south of JICT container terminal	Short-term (Urban side)
Development of new port area			
	Ancol Development	- New Passenger Terminal	Short-term
		- Multi Purpose Terminal	Short-term
		- Access road	Short-term
	Kalibaru Off-shore Development	- Consolidation of ship building yard	
		- Development of special cargo handling zone	
		- Access road	
		- Development of Kalibaru new port	
Environmental Improvement		- Improvement of water change through the port entrance by re-alignment of breakwater	Short-term
		- Ecological waterfront development with mangrove planting	
		- Development of amenity facilities such as observation tower	
Road development /improvement in/around the existing port		- Port Inner Road Improvement	Short-term
		- Eastern Port Access Highway to link with JORR	Short-term (Road sector)
		- Improvement of the existing urban road including western port access road and access road to/from JIUT	Short-term (Road sector)

Bojonegara

Project Concepts	Contents	Remarks
Basic Infrastructure Development	- Breakwater, channel, basin and necessary port service facilities	Short-term
Development of new Container Terminal (2 berths (600m) in the short term, 8 berths (2,400m) in the long term)		Short-term
Unitized and other cargo handling facilities development	- Multi purpose terminal	Short-term
	- General cargo berth	
	- Ro-Ro terminal	Short-term
	- Special cargo handling	
To provide good access to/from the port	- High-standard access road connecting the existing Jakarta-Merak toll road	Short-term (Road sector)
	- Railway service connected with an inland container distribution center/terminal	
	(In addition to the above access road, JORR (Jakarta Outer Ring Road) is indispensable for the new port operation.)	

B-3 Urgent Plan

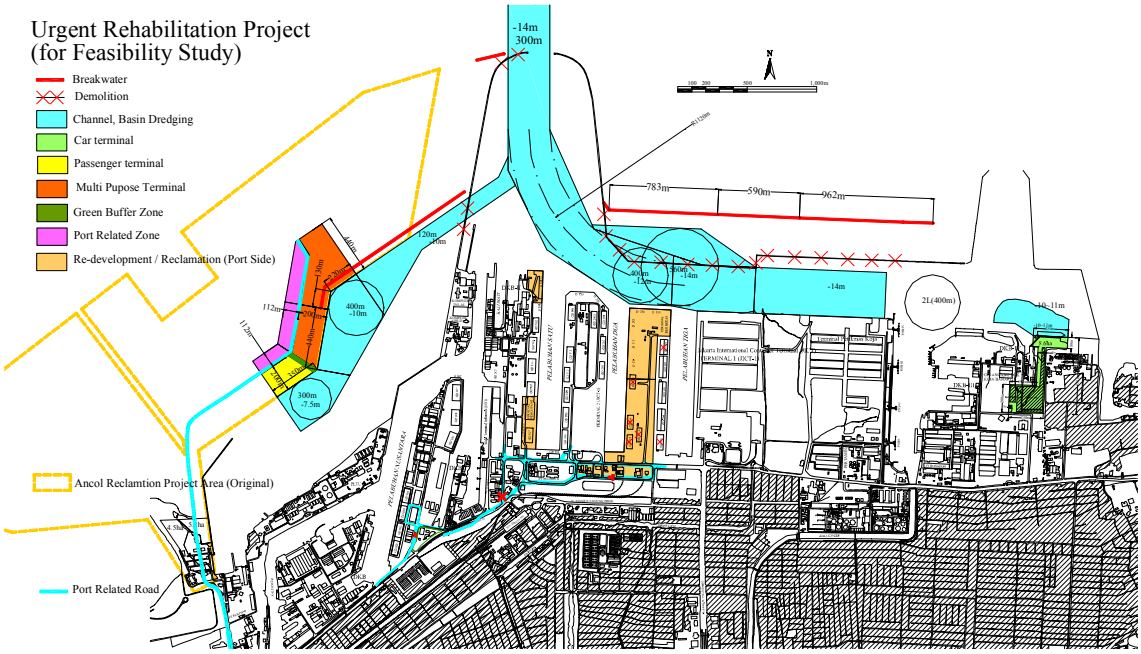
14. Among the projects in the master plan and the short-term development plan, the following projects are proposed to be implemented urgently. The study team assessed viability of the projects from economic, financial and environmental view points.

Urgent Rehabilitation Plan of Tanjung Priok

- Widening the Main Channel and expanding turning basin (should be partly realized by 2006)
- Automobile Terminal Development (should be realized by 2006)
- Inter-island Container Handling Improvement in Pier-III (Step by step redevelopment together with Ancol development; should be partly realized by 2008)
- Ancol Development including New Passenger Terminal, Multi Purpose Terminal and Access Road (Initial development should be realized by 2010)
- Port Inner Road Improvement (should be realized by 2006)
- Eastern Port Access Highway Development Linking with JORR - This project is urgent but should be implemented by Kimpraswil because road itself is outside of the port and will be a part of the urban road network.)

(Feasibility)

- Economic evaluation: EIRR (Port project, excluding Ancol) = 33.0%
  EIRR (Port project, including Ancol) = 18.2%
  EIRR (Access road project) = 25.1%
- Financial evaluation: FIRR (Public sector, excluding Ancol)= 10.7%
  FIRR (Public sector, including Ancol) = 4.3%
  FIRR (Automobile terminal operator) = 16.0%
- Not serious impacts on environment, however, it is desirable to be implemented in accordance with a proper environmental management plan and a monitoring plan.

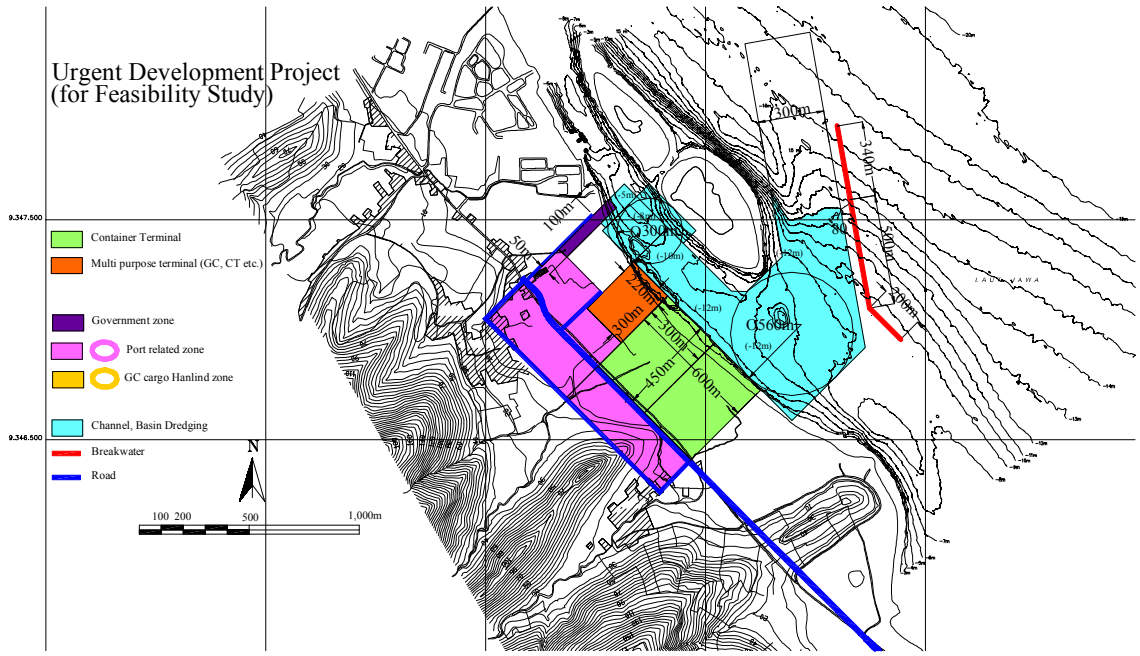


Bojonegara

- Container Terminal Development (should be completed by 2010)
- Multi Purpose Terminal Development (should be completed by 2008)
- Breakwater, Channel and Basin Development (should be developed together with terminal development; breakwater will be necessary for container terminal operation.)
- Port Access Road Development, implemented by Kimpraswil as a national road status (should be developed by 2008 when multi purpose terminal will be into operation.)

(Feasibility)

- Economic evaluation: EIRR=17.9%
- Financial evaluation: FIRR (Public sector)= 6.0%
  FIRR (Container terminal operator)= 18.7%
- Not serious impacts on environment, however, it is desirable to be implemented in accordance with a proper environmental management plan and a monitoring plan.



B-4 Recommendations

15. Based on the above results and conclusions, the study team recommends that the following matters be followed up by DGSC and IPC-II.

To implement the proposed urgent project at the earliest possible time

16. DGSC and IPC-II should make their best efforts to implement and realize the proposed urgent projects for Tanjung Priok rehabilitation as well as for Bojonegara new port development by the combination of soft loan and private fund.

To improve the port access road condition

17. Road sector, i.e. Kimpraswil and/or Jasa Marga should improve the condition of port access roads in good cooperation with port sector, i.e. DGSC and IPC-II. JORR completion is also indispensable for Bojonegara development because the port hinterland will be dependent on the toll road network including JORR.

To formalize master plans as well as land-use plans by government regulation

18. DGSC and IPC-II should follow up the study results and stipulate master plans as well as land-use plans of the Jakarta Metropolitan port by government regulation at the earliest possible time to avoid disorderly development of the port and hinterland.

To take prompt actions for re-organizing the existing port area

19. DGSC and IPC-II should take a prompt action for re-organizing the existing port area, especially on the following matters:

- Military relocation
- Keeping inactivated and/or unutilized land in the port area under the port administration control to prevent disorderly and unchecked development

To follow up environmental matters

20. DGSC and IPC-II should duly consider environmental affairs in carrying out port activities and/or new development. In particular, the following issues should be addressed:

- Countermeasures to deal with drainage and waste material from the city to the port
- Improvement of water quality in/around the port by relocation of breakwater making use of ecological waterfront such as mangrove plantation etc.

C. Software –Management and Operation of the Ports–

21. For better management and operation of the port, the following measures should be taken by DGSC in collaboration with IPC-II:

C-1 Status of Jakarta Metropolitan Port

22. Tanjung Priok and Bojonegara, important infrastructure supporting industrial activities in Western Java area, should be given the status of International Hub Port, and should be properly managed as twin ports of Jakarta Metropolitan port.

C-2 Terminal Operation

To establish an appropriate operation scheme for the automobile terminal

23. A full fledged loading/unloading operation of automobile products requires special skills. Therefore, IPC-II should establish an appropriate operation scheme for the automobile terminal immediately. The study team recommends the following:

- Terminal operation itself should be left to the expertise of automobile transport/handling companies
- Reasonable handling tariff should be set after examining the examples of other terminal as well as taking the port users' opinions into consideration (Based on the financial analysis, the study team proposes around US$13/unit.)
- The terminal should be operated under common use principle for various automotive manufacturing companies

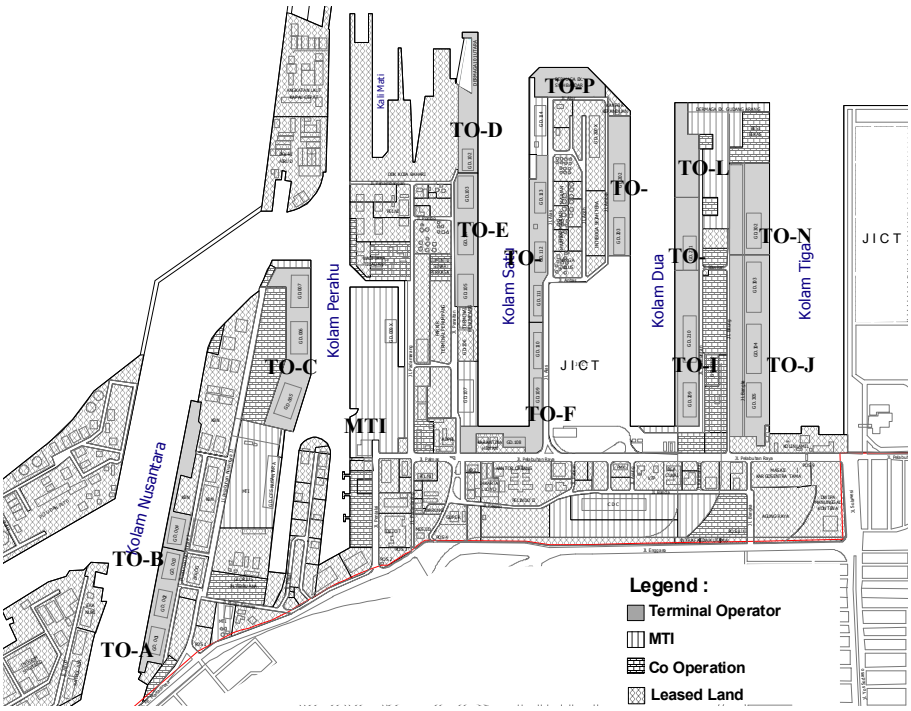
To improve operational performance of terminals

- To monitor operational performance of terminals properly through the following actions:
  - Clearer performance indicators should be introduced to supervise the performance of operators
  - Performance target should be incorporated in the concession agreement or management agreement
- Consolidation of the operators of conventional terminal considering the following points: (From the theoretical point of view, excessive numbers of operator decreases the scale merit in terms of number of available berths for common carriers and this situation causes unnecessary waiting for carriers.)
  - The existing operators of conventional terminal should be grouped into smaller numbers to operate reasonable number of berths jointly to pursue the scale merit.

It is suitable that 5 to 10 berths are available for each terminal operator centering on terminal operators and/or stevedoring with good performance.

- Selection of terminal operators should be carried out by open-tender.

- To reduce berthing time by changing berthing fee system from day charge to time charge
- To establish an effective land traffic management system in/around the port as well as improvement of roads in/around the port.
- To reduce direct delivery ratio to/from the ports with appropriate regulations. To promote the use of yard/transit shed with some incentive is also necessary.
- To properly maintain port facilities and equipment



Existing Operators of Conventional Terminal

To create appropriate concession scheme for Bojonegara container terminal development

24. In introducing the concession scheme to Bojonegara container terminal development, the following points should be taken into consideration:

- Open tender system to secure fairness and transparency should be adopted.
- Assessment of business viability from view points of both IPCII/Government and concessionaire through risk analysis and identifying proper risk sharing scheme between IPCII/Government and concessionaire should be conducted as early as possible after the feasibility study.
- Performance target should be incorporated in the concession agreement and management agreement. Corporate articles together with clear accounting system should be more clearly defined when a joint stock company is a concessionaire candidate. DGSC should play a role of regulator.

C-3 Port Management

To provide reasonable and competitive tariff/charge and maintain transparency of price setting

- Leadership of DGSC should re-examine the existing tariff/charge system comparing with other cases in neighboring ports.
- Based on the above examination, DGSC should formulate the revised concept/system of tariff and port charge and open it to the public.
- IPC-II should show the maximum level of tariff/charge and give terminal operators and/or stevedoring companies a free hand to set actual tariff/charge within the maximum.

  (Based on the financial analysis, handling charge at the container terminal in Bojonegara could be reduced to 60~70% of its current level. The team also proposes a rate of about US$13/unit for the automobile terminal in Tanjung Priok.)

To achieve efficient customs clearance

- Three customs offices in the port area should be integrated into one customs office together in order to achieve a single window procedure

To improve EDI system

25. EDI system expedites documentation procedures in ports including customs clearance. EDI system has already been established in Tanjung Priok, however, it is not fully utilized and optimized yet. The study team recommends the following actions:

- To integrate the existing EDI system with close coordination and cooperation of customs office
- IPC-II should utilize an EDI service provider as a means of getting information on port activities to analyze berth performance

To enhance port security

- To set up a security committee composed of related organizations in order to prevent such incident as pilferage in the port. The committee will meet regularly to discuss problems reported from related offices as well as port users, measures and recommendations to improve the situation.
- To introduce sufficient hardware for port security such as fence and ITV which can be monitored from a central office, together with a constant surveillance system in actual site.

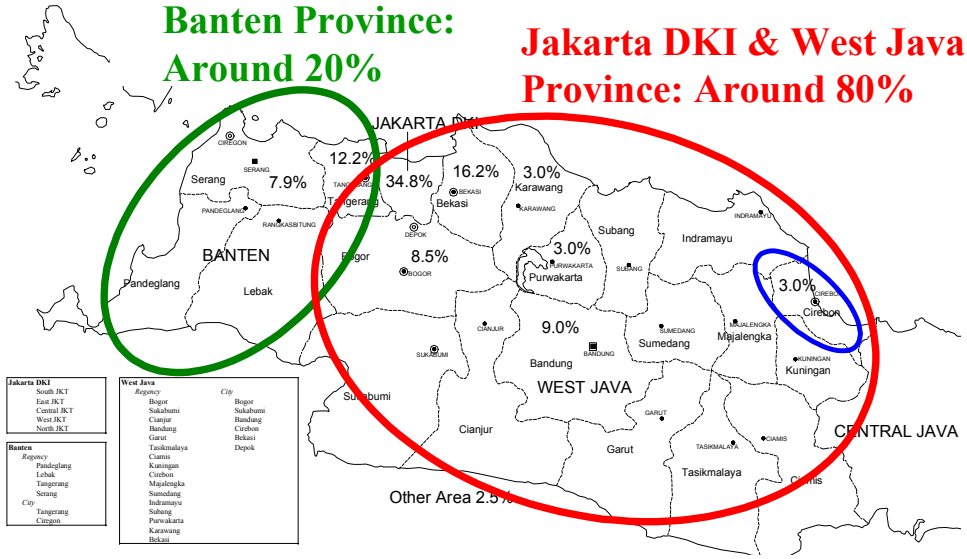
To control land-use of the port area

- Keeping inactivated and/or unutilized land in the port area under the port administration control to prevent disorderly and unchecked development

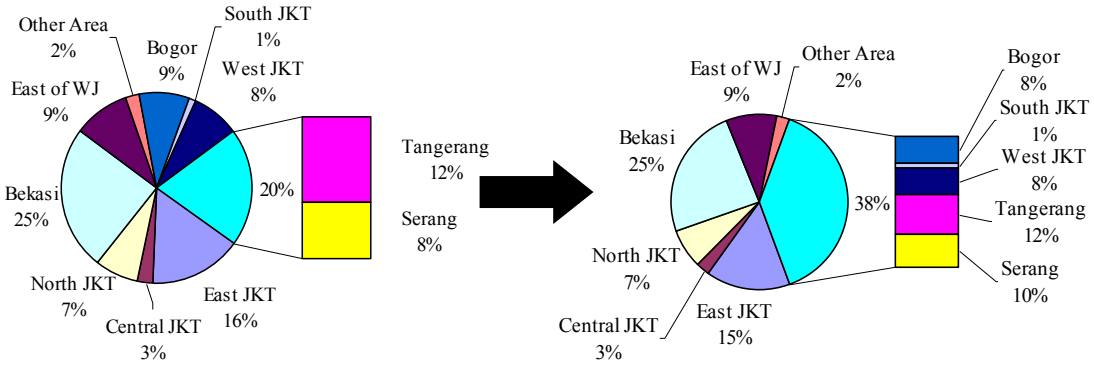
To activate promotion of the port

- IPC-II should hold meetings with related parties such as shipping companies, shippers and consignees to exchange necessary information and viewpoints, to obtain precise information on the shipping market, and to grasp the needs of users.
- To clarify the sales points of the port and to reinforce port sales promotion activity to potential users

- To develop the hinterland and attract more cargo, especially for Bojonegara new port
- It is important to coordinate port development with regional development, especially industrial location. Special economic zone should be developed adjacent to the ports, especially for Bojonegara new port



Current Container Cargo Distribution



Bojonegara Hinterland (Current Situation and Future)

C-4. Finance

To optimize soft loans to realize substantial port development of the Greater Jakarta Metropolitan ports

26. To realize the development plans of the Greater Jakarta Metropolitan ports, IPC2 will have to prepare sufficient funds. As the financial situation of IPC-2 will have been tough for the time being, the proposed urgent projects both for Tanjung Priok port and Bojonegera new port should be implemented optimizing soft loans which have advantages of low interest as well as long grace period.

To formulate proper financial scheme for development, operation and maintenance of the ports

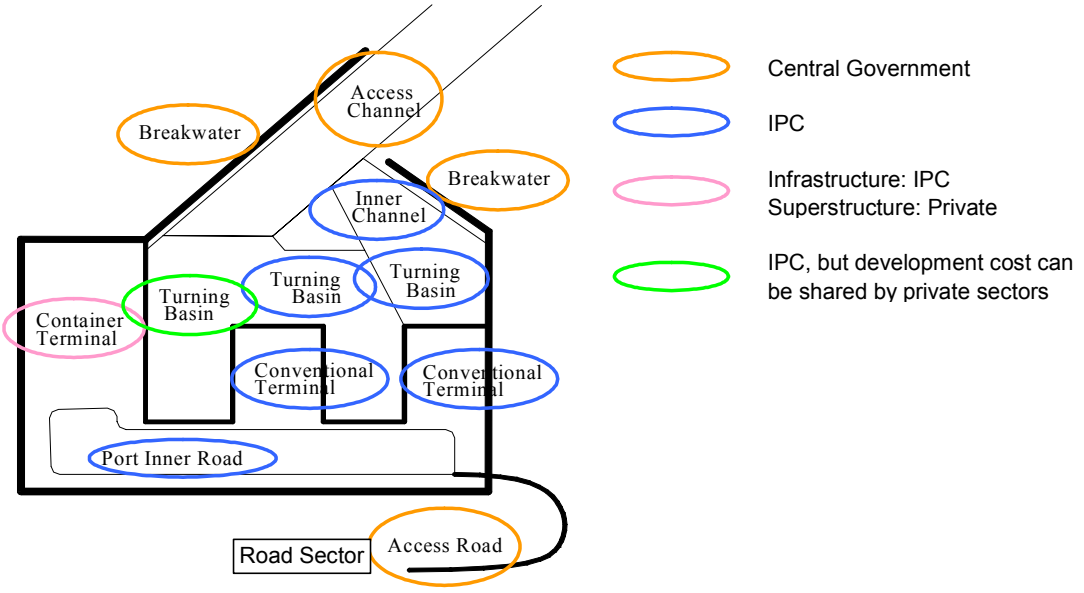
27. In order to implement port development projects smoothly, it is crucial to formulate proper financial scheme for development, operation and maintenance of the ports, and the Ministerial Decree on National Port System should be amended incorporating financial aspects of port investment and operation. The study team proposes the following framework for the proposed urgent projects of Tanjung Priok and Bojonegara:

	Development	Management/ Operation	Remarks
Breakwater, Access Channel	CG	CG／IPC-2*1	
Inner Channel and Basin	IPC-2	IPC-2	
Terminal (Profitable)			Container terminal etc.
Infrastructure	IPC-2／CG*2	Private	Quay wall, front basin etc.
Superstructure	Private		Handling equipment, pavement etc.
Terminal (Less profitable)	IPC-2／CG*2	Private／IPC-2	Conventional terminal etc.
Port Inner Road	IPC-2	IPC-2	
Access Road	Road Sector*3	Road Sector*3	

*1： When an integrated management by IPC-2 needed

*2： In case that project risk will be considered to be high, it should be examined whether the CG will bear the cost.

*3： CG or Local Government



28. It is also essential that the financial burden of IPC-2 should be lowered to keep good port management and operation, and in this connection, private funds should be utilized properly and effectively. In case that beneficiaries by the port development are able to be specified in such case as development of turning basin in front of specific terminal, they should pay for a part of the project cost in accordance with the extent of their benefit. And when the project risk is considered to be relatively low, e.g. in case of expanding container terminal, there will be a possibility to introduce complete BOT scheme for infrastructure development. For access road development, local government as well as related public sector should be involved.

D. Humanware –Enhancement of Institutional Capacity–

D-1 Establishment of effective training system

- To provide good training system for port workers/gangs
- To activate port related organization by introducing such system as Quality Control (QC) circle
- To enhance the function of the Port Training Center (PTC)

D-2 Setting up the information unit together with the development of effective database system

- To develop appropriate statistical system and to establish the integrated database system
- To enhance the capability of planning as well as port performance evaluation utilizing the above database system

29. To achieve afore-mentioned improvements of soft-ware issues, it is recommended that "Administrative & Management Skill Enhancement Program" should be implemented by DGSC and IPC2 with the support of external experts. The said program can provide various tools that are necessary to resolve the wide-ranging problems.

30. DGSC and IPCs should commence the following actions with the assistance of the proposed Administrative & Management (A & M) Skill Enhancement program.

- To modify port statistics system
- To conduct training for the enhancement of the capability of assessing/evaluating performance of the private sector
- To modify the institutional framework for responding "Decentralization" and "Privatization"

31. Major activities of the program are as follows:

- Establishment of "Port Affairs Information Unit (provisional name)"
- Recipient of external expert team for technology transfer
- Inspection/examination of detailed administrative system
- Training of staff of the Port Affairs Information Unit
- Establishment of the "Port Affairs Information System (provisional name)"
- Provision of guidelines regarding port administrative procedures
- Formulation of training program

32. Outcome of the program are as follows

- Establishment of a new organization that is able to control and analyze all port affairs information,
- Establishment of a new information system that enables comprehensive evaluation of port activities due to its standardized format and integrated contents
- Fostering of administrative officials who have the skill to evaluate/asses basic

data/information

- Establishment of a technology transfer scheme from the central government (a new unit) into IPCs, local governments, etc.

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Table and Figure Contents

CHAPTER-14. FESIBILITY STUDY ON URGENT REHABILITATION PLAN OF TANJUNG PRIOK

14-A. CONCEPT AND COMPONENTS OF URGENT REHABILITATION PLAN OF TANJUNG PRIOK

14-A-1 Concept of Urgent Rehabilitation Plan of Tanjung Priok

1. As stated in Chapter-9 "Development Goals and Strategy", to overcome capacity constraints, increase productivity and better serve its potential hinterland and users, urgent rehabilitation of Tanjung Priok is strongly recommended. For export/import container, which will rapidly increase in future, if there is no rehabilitation of the port including improvement of navigational condition, the capacity of international container handling at Tanjung Priok will reach its limits at **around 2007** even after completion of some new berths. This will cause significant damage to the trade activity in Indonesia since Tanjung Priok is now functioning as the sole international container port in the West Java area. To cope with this situation, navigational condition should be improved, which will increase the international container handling capacity of the port up to **3.6~3.8 million TEUs**.

2. The rehabilitation of Tanjung Priok Port is necessary and urgent even if the development of a new port (here we assume it will be Bojonegara new port) will be developed, since operation of the new port would not commence until around 2008~9, considering the preparation and port construction period as well as the development of a new access road which requires land acquisition.

3. Around 80% of total container cargoes are generated in the hinterland of Tanjung Priok. For these potential users of Tanjung Priok, viewing from existing capacity limits of Tanjung Priok, urgent improvement of Tanjung Priok is strongly desired, otherwise, economic activity as well as investment climate will be surely depressed.

4. From the viewpoint of the investment efficiency, it is better to optimize and make the best use of the existing port facilities in Tanjung Priok. When comparing the investment cost for increasing the container handling capacity of Tanjung Priok to that of Bojonegara, Tanjung Priok rehabilitation is more cost-effective being able to achieve 600,000 TEU of container handling capacity increase by the cost of 1,100 billion Rp, while 1,600 billion Rp for the development of Bojonegara new port is required for the capacity of 700,000 TEU by a rough cost estimation.

5. Furthermore, the rehabilitation of Tanjung Priok Port is necessary not only for international container but also for increasing the capacity and productivity of conventional wharves including inter-island container handling, together with coping with newly generated cargo demand such as car import/export and alleviating the traffic congestion in/around the port.

6. Bojonegara new port as a complementary international container handling port should be developed and operated by the time when the demand of international container will reach the capacity of Tanjung Priok again, say by around 2010.

7. In line with the above development scenario of Greater Metropolitan ports, it is strongly recommended that Urgent Rehabilitation project of Tanjung Priok Port should be implemented immediately. The objects of the project are:

- To make the Tanjung Priok Port function as a "Logistic Center" in ASEAN countries

in order to maintain and enhance the competitiveness of Indonesian industry by providing attractive business /investment environment.

- To make the Tanjung Priok Port function as a Regional Hub Port" not only attracting international trunk lines but also linking them to domestic/inter-island lines

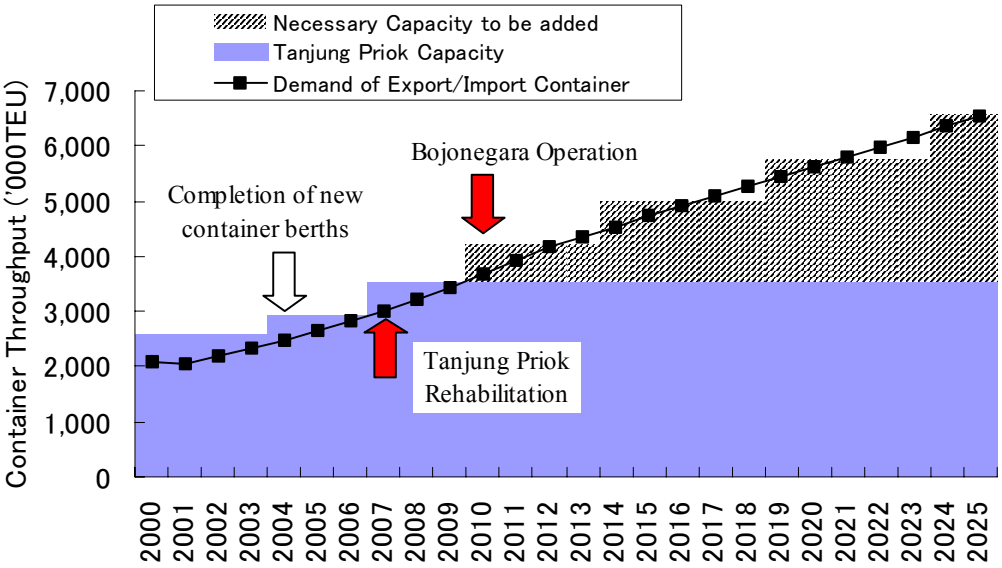


Figure 14-A-1 Demand and Capacity (International Container)

14-A-2 Components of Urgent Rehabilitation Plan of Tanjung Priok

8. The following project components have been selected for urgent rehabilitation projects of Tanjung Priok port on the basis of the Master Plan and Short-term Development Plan putting priority on "Coping with increasing cargo demands", "Impact to the national/regional economy", and "Viability of the project".

- Widening of the channel and basin together with relocation of the existing breakwater for the purpose of increasing the port capacity and navigational safety, accommodating larger vessels and improving safety of ship traffic
- Development of a dedicated-use automobile terminal for the purpose of facilitating trade of automobile products in AFTA era and promoting various product-related industries in Indonesia
- Re-development of the existing port area for the purpose of improvement of efficiency and productivity of the existing port. (Including passenger terminal relocation, establishment of dedicated inter-island container terminal in Pier-III)
- Development of new port area in East-Ancol to cope with cargo increase in the future and for the smooth implementation of re-development of the existing port. (Including development of new passenger terminal, multi purpose terminal and access road)
- Improvement of port inner road for the purpose of securing smooth vehicle traffic and reducing the traffic congestion in/around the port

9. In relation to the last point, development of the Eastern Port Access Highway linking with JORR is also crucial and should be implemented immediately. However, the responsible body for the development will come from within the road sector such as Kimpraswil since the road itself is outside of the port and is a part of the urban road network. The port sector such as IPC2 should give support to the road sector as much as possible, (e.g. providing part of land in the port) because such development benefits port activity as well as urban transport.

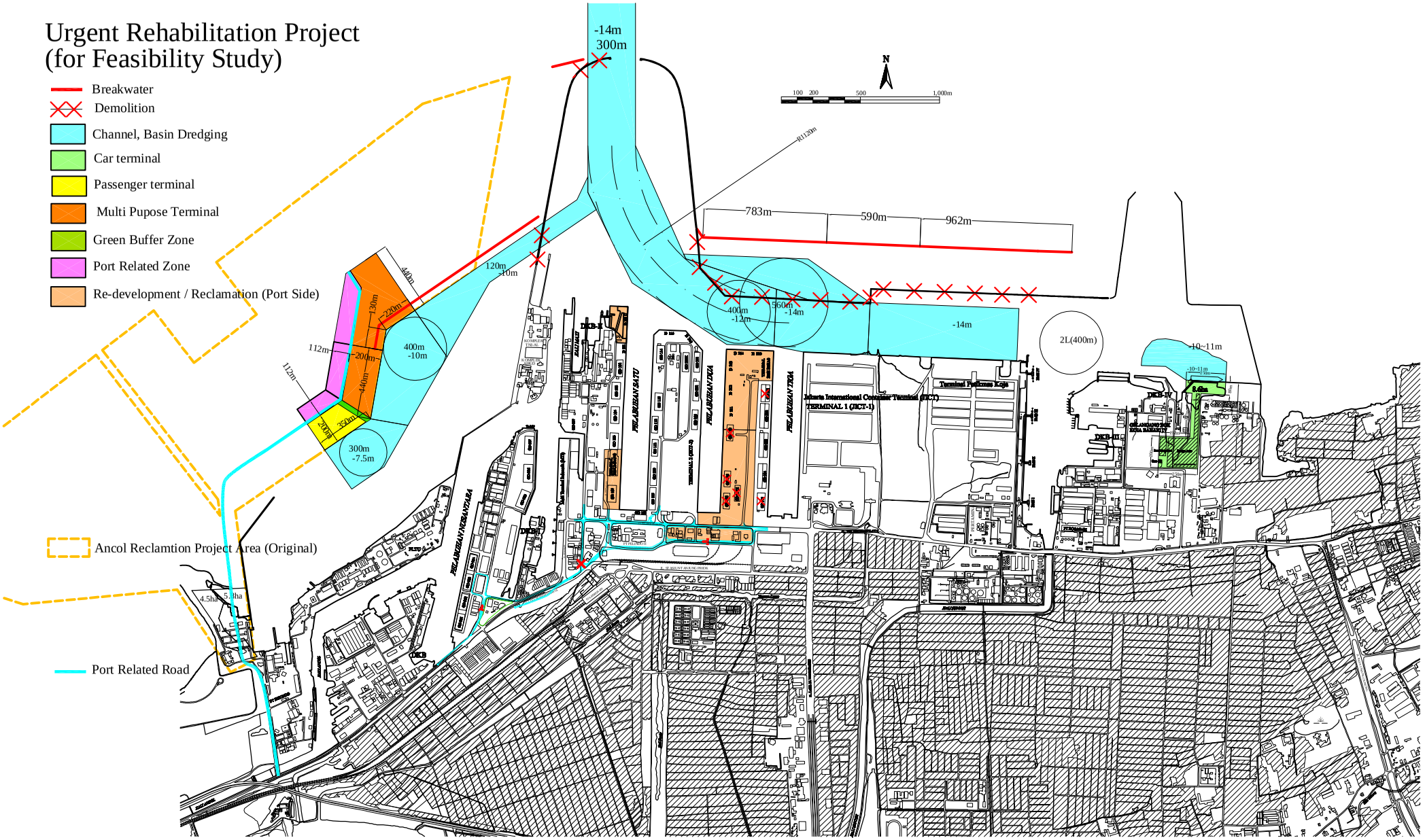
10. Project components are described in Table 14-A-1.

Table 14-A-1 Description of Project Components

Project Component	Proposed Year of Operation	Remarks
Widening the Main Channel and Turing Basin	2006~	Priority project in order to increase the port capacity and navigational safety. Implemented by phased construction
Car Dedicated Terminal Development	2006	Priority project implemented immediately in order to accommodate the urgent need of automobile export/import in AFTA
Inter-island Container Handling Improvement	2010~	Pier III reorganization is selected. (MTI expansion is pending because of the necessity of coordination with the related entities.).
Passenger Terminal Relocation	2010	A new passenger terminal is developed in Ancol development area
Ancol Development (New Passenger Terminal, Multi Purpose Terminal and Access Road)	2010~	Priority project in order to re-develop the current complicated land use.
Port Inner Road Improvement	2006~	Should be implemented accompanied with the increase of port capacity.
(Development of Eastern Port Access Highway linking with JORR should be implemented by the road sector such as Kimpraswil since the road itself is outside of the port and is a part of the urban road network. However, the port side should give support to the road sector as much as possible because such development benefits port activity as well as urban transport.)		

11. Layout of the project components is shown in Figure 14-A-2 based on the requirements as described in the next section.

Figure 14-A-2 Layout Plan of Urgent Rehabilitation Project of Tanjung Priok Port


Urgent Rehabilitation Project
(for Feasibility Study)
Breakwater
Demolition
Channel, Basin Dredging
Car terminal
Passenger terminal
Multi Pupose Terminal
Green Buffer Zone
Port Related Zone
Re-development / Reclamation (Port Side)
Ancol Reclamtion Project Area (Original)
Port Related Road
-14m
300m
783m
590m
962m
R120m
120m
-10m
400m
-10m
400m
-12m
560m
-14m
-14m
2L(400m)
10~11m
300m
-7.5m
112m
200m
130m
220m
140m
350m
N
100 200 500 1,000m
Jakarta International Container Terminal (JICT)
TERMINAL 1 (JICT-1)
Terminal Peti Kemas Koja
PELABUHAN SATU
PELABUHAN DUA
PELABUHAN TIGA
PELABUHAN KEMPANDAN
DKB-I
DKB-II
DKB-III
DKB-IV
DKB
4.5ha
5.1ha