

## 付 属 資 料

- 1 . S / W、M / M、T / R
- 2 . 主要面談者リスト
- 3 . Q / N
- 4 . 収集資料リスト
- 5 . ローカルコンサルタントリスト



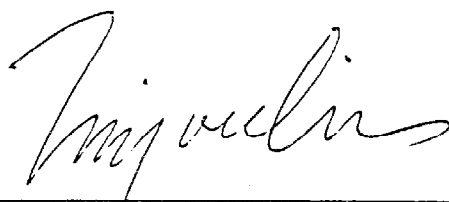
**SCOPE OF WORK  
FOR  
FEASIBILITY STUDY ON THE DEVELOPMENT  
PROJECT  
OF  
THE PORT OF CONSTANTZA  
IN  
ROMANIA  
AGREED UPON BETWEEN  
MINISTRY OF TRANSPORT  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY**

Bucharest, April 19th, 2000



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**H.E. TRAIAN BASESCU**  
Minister  
Ministry of Transport



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**Mr. TOSHIKAZU MIZOUCHI**  
Leader  
Preparatory Study Team  
Japan International Cooperation Agency

## **I.INTRODUCTION**

In response to the request of the Government of Romania, the Government of Japan has decided to conduct Feasibility Study on the Development Project of the Port of Constantza (hereinafter referred to as "the Study"), in accordance with relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Romania.

The present document sets forth the Scope of Work with regard to the Study.

## **II. OBJECTIVES OF THE STUDY**

The objectives of the Study are as follows:

- 1.to formulate a Master Plan for the Port of Constantza for the period up to the year 2020, and
- 2.to conduct a Feasibility Study on the projects to be proposed in the Short Term Development Plan for the period up to the year 2010.

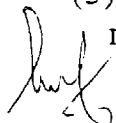
## **III. STUDY AREA**

The study covers the Constantza Port and its related area.

## **IV. SCOPE OF THE STUDY**

In order to achieve the objectives mentioned above, the Study shall cover the following items:

- 1.Review and analysis of Existing Data and Information
  - (1)to collect, review and analyze available data, information, reports and plans relevant to the Study
  - (2)to review existing development programs and projects for the port
  - (3)to review existing institutional frameworks for the port management and operation



- (4)to study the present situation and to identify problems that need to be resolved in the port activities
- (5)to study the present situation and future trend in the international shipping and inland transport in the port's hinterland to/from the port focusing on inter-modal transport
- (6)to study the present situation and future international trend focusing on harbor services
- (7)to study the present situation of compliance of the requirements of applicable international conventions on port activities

## 2.Survey on Natural Conditions

- (1)Geographical condition
- (2)Topographical condition
- (3)Hydrographical condition
- (4)Environmental condition

## 3.Demand forecast of cargo and passenger traffic through the target port in the target years 2010 and 2020

## 4.Preparation of the Development Strategy of Constantza Port

- (1)to evaluate the potential of the Port, taking account of geographical advantage, other infrastructure development plans, development of a multi-modal transport system, development of free zone and so forth
- (2)to examine possible industrial development which induces port development
- (3)to examine a development program of the Port, taking account of the future potential of the Port mentioned above

## 5.Formulation of Master Plan for the Constantza Port (target year 2020)

- (1)to set up socio-economic framework up to the target year
- (2)to identify expected roles and functions of North and South Constantza Port
- (3)to study the optimum cargo-handling system
- (4)to estimate the required scale of facilities and number of machines
- (5)to study port facilities to connect sea-going vessels and inland transport measures: road, railway, pipeline, and inland waterway
- (6)to make basic layout plans of port facilities
- (7)to estimate costs
- (8)to roughly assess economic viability



- (9)to conduct Initial Environmental Examination (IEE)
- (10)to propose adequate management/operation system on a long-term basis
- (11)to propose management of harbor services including tariff policy
- (12)to propose improvement of existing information system for the Port
- (13)to prepare phased implementation plan
- (14)to examine an institutional framework of the Port

#### 6. Formulation of Short Term Development Plan (target year 2010)

Within the framework of the above master plan, the Short Term Development Plan shall be formulated.

- (1)to identify projects that needs to be urgently materialized
- (2)to make layout plans of port facilities by project
- (3)to estimate the required scale of facilities and number of machines by project
- (4)to conduct preliminary design of main facilities by project
- (5)to estimate project costs
- (6)to conduct Environmental Impact Assessment (EIA)
- (7)to propose adequate management/operation system on a short-term basis
- (8)to propose an adequate information system for the Port
- (9)to propose a systematization plan for North Constantza Port
- (10)to propose the solution for the optimization and efficiency of rail way and road transport in the Constantza Port
- (11)to analyze the influence and implication of "free zone" in port of Constantza
- (12)to prepare an appropriate institutional framework of the Port
- (13)to propose management of harbor services including tariff policy

#### 7. Feasibility Study on the Short Term Development Plan

- (1)to conduct economic analyses of short-term projects
- (2)to conduct financial analyses of short-term projects
- (4)to analyze the on-going projects and to make proposition in connection with the Master Plan

#### 8. Overall Recommendation




## V. SCHEDULE OF THE STUDY

The Study will be carried out in accordance with the attached tentative schedule. (Appendix)

## VI. REPORTS

JICA will prepare and submit the following reports in English to the Government of Romania.

### Inception Report

Thirty (30) copies at the Study in Romania at the beginning of the Study.

### Progress Report

Thirty (30) copies within 3 months after submission of the Inception Report.

### Interim Report

Thirty (30) copies within 3 months after submission of the Progress Report.

### Draft Final Report

Thirty (30) copies at the beginning of the last survey.

The Government of Romania will present its written comments to JICA within 1 month after the receipt of the Draft Final Report.

### Final Report

Fifty (50) copies within 2 months after JICA's receipt of written comments on the Draft Final Report from MOT.

## VII. UNDERTAKING OF THE GOVERNMENT OF ROMANIA

1. to facilitate the smooth conduct of the Study, the Government of Romania shall take necessary measures:

- (1) to secure the safety of the Japanese study team,
- (2) to permit the members of the Japanese study team to enter, leave and sojourn in Romania for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
- (3) to exempt the members of the Japanese study team from taxes, duties, and other charges on equipment, machinery and other materials brought into Romania for the conduct of the Study,



- (4)to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with implementation of the Study,
- (5)to provide necessary facilities to the Japanese study team for remittances as well as utilization of the fund introduced into Romania from Japan in connection with the implementation of the Study,
- (6)to secure permission for entry into all areas concerned for the implementation of the Study within the laws and regulations in force in Romania,
- (7)to secure permission for the Japanese study team to take all data and documents (including maps and photographs) to Japan, as necessary for analysis during the implementation of the Study, within the laws and regulations in force in Romania, and
- (8)to provide medical services as needed. Its expenses will be chargeable to members of the Japanese study team.

2.The Government of Romania shall bear claims, if any arise against members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part the members of the Japanese study team.

3.Ministry of Transport shall act as a counterpart agency to the Japanese study team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4.Ministry of Transport shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:

- (1)available data and information related to the Study,
- (2)counterpart personnel,
- (3)suitable office space with necessary equipment in Bucharest and Constantza, and
- (4)credentials or identification cards.





## VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expense and on a grant basis, the Japanese study team to Romania, and
- (2) to pursue technology transfer to the Romanian counterpart personnel in the course of the Study.

## IX. OTHERS

1. JICA and Ministry of Transport shall consult within each other in respect of any matter that may arise from or in connection with the Study.
2. Scope of Work is prepared both in English and in Rumanian. In case any doubt arises in interpretation, the English version shall prevail.



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# APPENDIX

## TENTATIVE STUDY SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Work in Romania															
Work in Japan															
Report Presentation															

IC/R: Inception Report  
P/R : Progress Report  
IT/R: Interim Report  
DF/R: Draft Final Report  
F/R : Final Report

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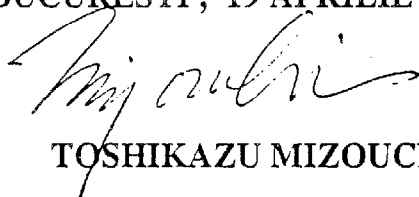
**DOMENIU DE LUCRU (S/W)**  
**PENTRU**  
**STUDIU DE FEZABILITATE PENTRU PROIECTUL**  
**DE**  
**DEZVOLTARE A PORTULUI CONSTANȚA DIN ROMÂNIA**  
**ÎNCHEIAT ÎNTRE MINISTERUL TRANSPORTURILOR**  
**ȘI**  
**AGENȚIA DE COOPERARE INTERNAȚIONALĂ JAPONEZĂ**



**TRAIAN BĂSESCU**

**MINISTRU**  
**Ministerul Transporturilor**  
**România**

**BUCUREȘTI, 19 APRILIE 2000**



**TOSHIKAZU MIZOUCHI**

**Șeful Grupului de întocmire a studiului**  
**Agenția de Cooperare Internațională**  
**Japonia**

## I. INTRODUCERE

Ca răspuns la solicitarea Guvernului Român, Guvernul Japoniei a decis să conducă Studiul de Fezabilitate pentru Proiectul de Dezvoltare a Portului Constanța (numit în continuare "Studiu"), în concordanță cu legile și reglementările în vigoare din Japonia.

Ca urmare, Agenția de Cooperare Internațională Japoneză (numită în continuare "JICA"), agenție oficială responsabilă cu implementarea programelor tehnice de cooperare ale Guvernului Japonez, va întocmi studiul în strinsă cooperare cu autoritățile implicate ale Guvernului României.

Prezentul document reglementează "Acordul de Cooperare (S/W)" cu privire la Studiu.

## II. OBIECTIVELE STUDIULUI

Obiectivele studiului sunt după cum urmează:

- 1) Formularea unui Master Plan (MP) pentru portul Constanța pe o perioadă de până în anul 2020.
- 2) Realizarea studiului de fezabilitate pe baza unor proiecte pe termen scurt până în 2010.

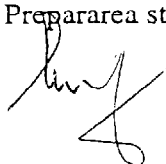
## III. ARIA STUDIULUI

Studiul acoperă portul Constanța și zona subordonată acestuia.

## IV. SCOPUL STUDIULUI

Pentru a atinge obiectivele menționate mai sus, studiul va acoperi următoarele elemente:

- 1) Reevaluarea și analiza datelor și informațiilor existente.
  - (1) Colectarea, revizuirea și analiza datelor, informațiilor, rapoartelor și planurilor disponibile și relevante pentru studiu.
  - (2) Evaluarea programelor și planurilor de dezvoltare existente pentru port.
  - (3) Evaluarea cadrului instituțional existent pentru administrarea și operarea portului.
  - (4) Studiul situației actuale și identificarea problemelor care trebuie rezolvate în legătură cu activitatea portului.
  - (5) Studiul situației prezente și a tendinței viitoare a transportului maritim internațional și a transportului intern în interiorul ariei portului la / de la port, concentrându-se asupra transportului inter-modal.
  - (6) Studiul situației actuale și a tendinței internaționale de viitor, concentrându-se asupra serviciilor portuare.
  - (7) Studiul situației actuale a respectării cerințelor convențiilor internaționale aplicabile activităților portuare.
- 2) Cercetarea condițiilor naturale.
  - (1) Condiții geologice
  - (2) Condiții topografice
  - (3) Condiții hidrologice
  - (4) Condiții de mediu
- 3) Estimarea volumului de trafic de mărfuri și pasageri prin portul respectiv în anii 2010 și 2020.
- 4) Prepararea strategiei de dezvoltare pentru portul Constanța.



- (1) Evaluarea potențialului portului, luând în considerare avantajele geografice, alte planuri de dezvoltare a infrastructurii, dezvoltarea unui sistem de transport multi-modal, dezvoltarea zonelor libere s.a.m.d..
  - (2) Examinarea posibilei dezvoltări industriale determinată de dezvoltarea portului.
  - (3) Examinarea programului de dezvoltare a portului, luând în considerare potențialul de viitor al portului, menționat mai sus.
- 5) Formularea Master Planului (M/P) pentru portul Constanța (anul planificat 2020)
- (1) Stabilirea cadrului economico-social până la anul planificat.
  - (2) Identificarea rolurilor și funcțiilor așteptate ale portului Constanta Nord și Sud.
  - (3) Studiarea sistemului optim de operare a mărfurilor.
  - (4) Estimarea proporției necesare a facilităților și a numărului de mașini.
  - (5) Studiarea facilităților portului pentru conectarea vaselor maritime cu mijloace de transport interior: drumuri, căi ferate, conducte și canale fluviale interioare.
  - (6) Întocmirea planurilor generale de bază ale facilităților portului.
  - (7) Estimarea costurilor.
  - (8) Evaluarea aproximativă a viabilității economice.
  - (9) Conducerea examinării inițiale de mediu (IEE).
  - (10) Propunerea unui sistem adecvat de management/sistem de operare pe termen lung.
  - (11) Propunerea unei sistem managerial al serviciilor portuare inclusiv politica tarifară.
  - (12) Propuneri pentru îmbunătățirea sistemului informațional existent al portului.
  - (13) Pregătirea planului de implementare, pe etape.
  - (14) Examinarea cadrului instituțional al portului.
- 6) Formularea unui plan de dezvoltare pe termen scurt (anul planificat 2010)  
 În cadrul Master Planului menționat mai sus, va fi formulat un plan pe termen scurt pentru:
- (1) Identificarea proiectelor care trebuie urgent materializate.
  - (2) Stabilirea unor planuri generale de facilități portuare pentru fiecare proiect.
  - (3) Estimarea marimeii necesare a facilităților și a numărului de mașini pentru fiecare proiect.
  - (4) Conducerea proiectelor preliminare ale principalelor facilități pentru fiecare proiect.
  - (5) Conducerea estimării impactului de mediu (EIA).
  - (6) Propunerea unui sistem adecvat de management/sistem de operare, pe termen scurt.
  - (7) Propunerea unui sistem adecvat informațional pentru port.
  - (8) Propunerea unui plan de sistematizare pentru portul Constanta Nord.
  - (9) Propunerea soluțiilor pentru optimizarea și eficientizarea transportului feroviar și rutier în portul Constanța.
  - (10) Analiza influenței și implicațiilor "zonei libere" în portul Constanța.
  - (11) Pregătirea unui cadru instituțional adecvat pentru portul Constanța.
  - (12) Propunerea unui sistem managerial al serviciilor portuare și a politicii tarifare.
- 7) Studiu de fezabilitate asupra planului de dezvoltare pe termen scurt.
- (1) Conducerea analizei economice a proiectelor pe termen scurt.
  - (2) Conducerea analizei financiare a proiectelor pe termen scurt.
  - (3) Analiza proiectelor aflate în desfășurare și realizarea unor propuneri în corelație cu Master Planul (M/P).
- 8) Recomandări Generale.

## V. GRAFICUL STUDIULUI

Studiul va fi realizat în concordanță cu intenția din graficul anexat (anexa)




## VI. RAPOARTE

JICA va întocmi și prezenta următoarele rapoarte, în limba engleza, Guvernului Romanei.

### Raportul Inițial

30 copii la 1 (una) lună după începerea studiului în România.

### Raportul Preliminar

30 copii la 3 luni după prezentarea Raportului Inițial.

### Raportul Intermediar

30 copii la 3 luni după prezentarea Raportului Preliminar.

### Proiectul Raportului Final

30 copii la începutul ultimei cercetări.

Guvernul României va prezenta comentariile sale, în scris, către JICA într-o luna de la primirea Proiectului Raportului Final

### Raportul Final

50 copii în interval de 2 luni după ce JICA primește comentariile în scris asupra Proiectului Raportului Final.

## VII. OBLIGAȚIILE GUVERNULUI ROMÂNIEI

1. Pentru a facilita o coordonare fluentă a studiului, Guvernul României va lua măsurile necesare:

- (1) Pentru asigurarea securității echipei de studiu japoneze.
- (2) Pentru a permite membrilor echipei de studiu japoneze să intre, să locuiască și să stea în România pe durata misiunii lor și, în acest scop, să fie exceptați de la formalitățile de înregistrare pentru străini și de taxele consulare.
- (3) Pentru exceptarea membrilor echipei japoneze de la taxe, onorarii și alte obligații în legătură cu echipamentul, aparatura și alte materiale aduse în România în scopul efectuării studiului.
- (4) Pentru exceptarea membrilor echipei japoneze de la plata impozitului pe venit sau în legătură cu orice retribuție sau alocație plătită membrilor echipei de studiu japoneze pentru serviciile în legătură cu implementarea studiului.
- (5) Pentru asigurarea facilităților necesare echipei japoneze în vederea expedierii banilor și pentru utilizarea fondurilor introduse din Japonia în România în legătură cu implementarea studiului.
- (6) Pentru asigurarea accesului în toate zonele pentru implementarea studiului în conformitate cu legile și reglementările în vigoare din România.
- (7) Pentru a permite echipei de studiu să-și ia toate datele și documentele (incluzind hărți și fotografii) în Japonia, necesare pentru analizarea lor pe durata realizării Studiului în conformitate cu legile și regulamentele din România, aflate în vigoare;
- (8) Pentru asigurarea serviciilor medicale necesare. Cheltuielile vor fi plătite de către membrii echipei japoneze.

2. Guvernul României va suporta reclamațiile, dacă apar, în legătură cu membrii echipei japoneze, pe tot parcursul exercitării obligației lor, sau în legătură cu obligațiile acestora pe durata implementării studiului, cu excepția acelor revendicări provocate din prea mare



neglijență, sau care au fost provocate în mod voluntar de unul dintre membrii echipei japoneze.

3. Ministerul Transporturilor va acționa ca o agenție similară a echipei japoneze de studiu și de asemenea ca un coordonator în relațiile cu alte organizații guvernamentale sau non-guvernamentale, interesate de buna implementare a Studiului.
4. Ministerul Transporturilor, pe cheltuiala sa, va asigura echipei de studiu japoneze următoarele, în cooperare cu organizațiile interesate:
  - (1) date și informații disponibile în legătură cu studiul;
  - (2) colaboratori;
  - (3) spații pentru birouri cu echipament necesar în București și Constanța, și
  - (4) cărți de acreditare și identitate.

### **VIII. OBLIGAȚIILE JICA**

Pentru implementarea studiului, JICA va lua următoarele măsuri:

- (1) să trimită pe cheltuiala sa și documentat, echipa de studiu în România;  
și
- (2) să asigure transferul de tehnologie către personalul corespondent român, pe tot parcursul studiului.

### **IX. DIVERSE**

- (1) JICA și Ministerul Transporturilor se vor consulta reciproc în legătură cu orice problema care poate apare de la / sau în legătură cu studiul.
- (2) Acordul de cooperare (S/W) este redactat atât în limba engleză cât și în limba română. În cazul unor neînțelegeri în interpretare, primează varianta în limba engleză.



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# APPENDIX

## TENTATIVE STUDY SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Work in Romania															
Work in Japan															
Report Presentation	△				△		△						△		△
	IC/R				P/R		IT/R						DF/R		F/R

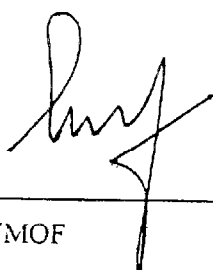
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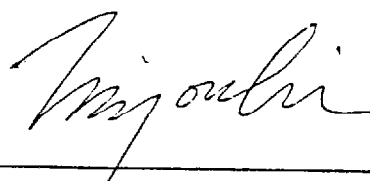


MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
FEASIBILITY STUDY ON THE DEVELOPMENT PROJECT  
OF  
THE PORT OF CONSTANTZA  
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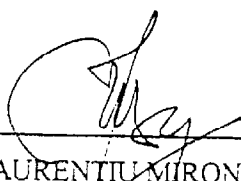
BUCHAREST, April 19th, 2000



Mr. GHEORGHE NAUMOF  
Director, Directorate for Regulations and  
Quality of Services in Seaports and Maritime  
Navigation  
Ministry of Transport



Mr. TOSHIKAZU MIZOUCHI  
Leader  
Preparatory Study Team  
Japan International Cooperation Agency



Mr. LAURENTIU MIRONESCU  
General Director  
National Company MARITIME PORTS  
ADMINISTRATION CONSTANTZA S.A.

The Preparatory Study Team, organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. MIZOUCHI Toshikazu, visited Romania to discuss the Scope of Work for "Feasibility Study on the Development Project of the Port of Constantza (hereinafter referred to as "the Study").

During the stay of the Preparatory Study Team in Romania, a series of meetings were held between the Preparatory Study Team and Romania authorities, represented by the Ministry of Transport (hereinafter referred to as "MOT") on the Study and both sides agreed and signed the Scope of Work for the Study.

The list of attendants appears in APPENDIX.

The main item discussed by both sides are as follows:

1. Duration of Study

Both sides agreed that the duration of the Study is about Fifteen (15) months.

2. Target-Year

Both sides agreed about Target Year on the Study as follows:

The target-year of the Master Plan shall be 2020.

The target-year of the Short Term Development Plan shall be 2010.

3. Special requests for the study framework

Detailed study framework to be included in the Study is proposed by MOT as follows:

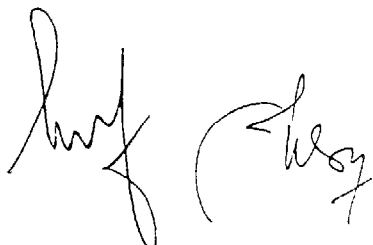
(1) Impact of Romania's acceding to EU.

(2) The Study covers a market research in neighboring countries to identify the potential of Constantza Port as a gateway on the Central Asia-Europe Corridor, and analyze competition of the Port among other European major ports.

4. Steering Committee

Both side agreed that MOT shall establish a Steering Committee composed of the following organizations under the chairmanship of MOT headed by Mr. GHEORGHE NAUMOF, Director, Directorate for Regulations and Quality of Services in Seaports and Maritime Navigation :

(1) Ministry of Transport



- (2) National Company MARITIME PORTS ADMINISTRATION CONSTANTZA S.A.
- (3) Administration of Navigable Canals Constantza S.A.
- (4) Constantza Sud and Basarabi Free Trade Zone Administration R.A.
- (5) Constantza County Customs office

and if necessary in the course of the Study, MOT would add other Organization to the Committee.

#### 5. Local Consultants

MOT requested that MOT shall recommend some consultant companies to be employed by full-scale Study Team, if necessary. The Preparatory Study team promised to convey this request to JICA Headquarters.

#### 6. Technology Transfer

The full-scale Study Team shall organize workshops / seminars for the related authorities during the study periods for proceeding technology transfer.

MOT requested the Romanian counterpart personnel take advantage of training course in Japan related to the Study to promote an effective technology transfer.

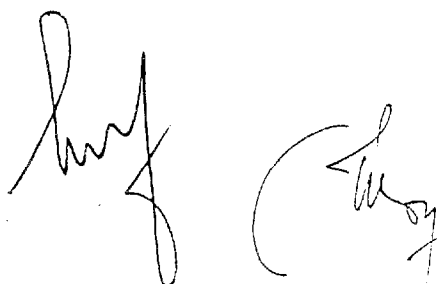
The Preparatory Study team promised to convey this request to JICA Headquarters.

#### 7. Reports

Both sides agreed that the Final Report should be opened to public.

The executive summary of Final Report will be prepared both in English and Romanian.

Only contents of other each report will be prepared both in English and Romanian.



## APPENDIX

### List of Attendance of Romanian Side

#### Ministry of Transport

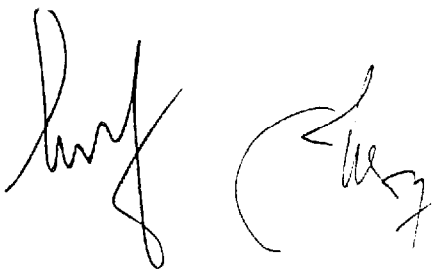
H.E. TRAIAN BASESCU	Minister
H.E. ALEODOR FRANCU	State Secretary
Mrs. LILIANA BARNA	General Director, General Directorate for Foreign Finance Affairs
Mr. GHEORGHE NAUMOF	Director, Directorate for Regulations and Quality of Services in Seaports and Maritime Navigation
Mr. EMIL UNGUREANU	Head of Foreign Loan Unit
Mr. GHEORGHE BORS	Head of International Co-operation Division, Directorate for Regulations and Quality of Services in Seaports and Maritime Navigation

#### National Company MARITIME PORTS ADMINISTRATION CONSTANTZA S.A.

Mr. LAURENTIU MIRONESCU	General Director
Mr. GHEORGHE MOLDOVEANU	Technical Director, National Company Maritime
Mrs. NICOLETA DOGARU	Head of Foreign Investment Credits Department
Mrs. RALUCA DARABAN	Economist, Foreign Investment Credits Department

#### Design Institute For Roads Water And Air Transport (IPTANA)

Prof. Ph.D. ROMEO CIORTAN	Director of Hydraulic Division
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## List of Attendance of Japanese Side

### The Preparatory Study Team


Mr. Toshikazu Mizouchi Leader	Director, International Affairs Office, Ports and Harbours Bureau, Ministry of Transport
Mr. Mitsutaka OTSU Member	Deputy director, Coast Administration and disaster prevention Division, Ports and Harbours Bureau, Ministry of Transport
Mr. Mamor SHIGEMOTO Member	Section Chief, International Affairs Office, Ports and Harbours Bureau, Ministry of Transport
Mr. Kazuya NARUKAWA Member	Staff, First Development Study Division, Social Development Study Department, JICA
Mr. Masahiro YOKOGAWA Member	General Manager, Fujii Survey & Design Co., Ltd
Mr. Shigehito SHIGA Translator	Training Coordinator, Japan International Cooperation Center

### Embassy of Japan

Shigemi JOMORI	Counselor
Atsutoshi HAGINO	Third Secretary

### JICA/JOCV Romania Office

Mr. Hiroaki OKUBO	Resident Representative
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# TERMS OF REFERENCE FOR THE FEASIBILITY STUDY ON DEVELOPMENT PROJECT OF THE PORT OF CONSTANTZA IN ROMANIA

Requesting Agency: Ministry of Transports

Proposed Source of Assistance: The Japan International Cooperation Agency (JICA)

## 1. Background

### 1.1 Cargo Traffic through the Port of Constantza

Most of Romanian overseas trade cargoes pass through the Port of Constantza, the largest and deepest seaport at the Black Sea. The Port of Constantza is advantageously located at one end of the Rhine-Main-Danube waterway which is connected directly with the port by Danube-Black Sea Canal. The port offers quick access to the Bosphorus Strait and the entrance of Volga-Don Canal, and hence functions as the Eastern Gateway of landlocked countries in Central and Eastern Europe linking these countries with Middle East, Far East, North Africa and CIS. Thus, the Port of Constantza is receiving transit cargoes from/to these countries in addition to the Romanian domestic cargoes mentioned-above.

The actual total traffic capacity of Port Constantza is about 90,0 million tons/year from which 54,0 million tons/year dry cargo and bulk carriers and 36 million tons/year -tankers.

In 1995, the Port of Constantza handled 34.90 million tons of cargo, from which 6.19 million tons of general cargo including container cargo (1.9% of the total), 14.56 million tons of liquid bulk cargo (41.7%).

Major commodities of import are crude oil (43.0% from the total imports, in metric tons), ores (24.2%), coal/coke (13.5%), oil products (9.5%) and phosphate (3.0%), general cargo in break-bulk (1.8%) and container cargo (1.4%).

Major commodities of exports are general cargo in break-bulk (38.5% from the total exports), oil products (25.4%), cement (14.5%), cereals (6.7%), urea (6.1%), coal/coke (4.0%) and container cargo (3.0%). On the other hand, the volume of transit cargo is 1.36 million tons as a total, accounting 3.9% from the total cargo in the same year. The major commodities of transit cargo are ores (58.2%) of the total transit and cereals (25.7%).

The total traffic through the Port of Constantza peaked in 1988, recording 62.5 million tons, and then declined sharply and bottomed out in 1992 at 27.2 million tons reflecting the change in regimes in 1989 and the subsequent turbulent period. Since then the total traffic has shown a steady recovery showing an average increase rate of 6.3% per annum. The port traffic, however, has shown a considerable change in commodity-wise composition compared with that in the former regime reflecting the structural change in the national economy by the introduction of a market-oriented economy, privatization policy and diversification of trade partners to cope with global competition.

In 1995, the number of containers through the port showed a sharp increase, recording around 69,000 TEUs, a gain of 39.8% over the preceding year and 2.3 times as much as the peak in the former regime reflecting the promotion of production and consumption of consumer goods rather than heavy industries on which emphasis was put in the former regime.

In the same year, in Romanian cereal trade, exports (volume: 554,000 tons) surpassed imports for the first time since 1988, reflecting privatization of farmland which has great potential as

a granary and had been neglected in the former regime. Also in 1995, the volume of transit cereals showed a 85.4% increase over the preceding year.

The volumes of imported iron, ores and coke as raw materials, and exported steel products as finished products have recently shown a steady recovery though they have not yet reached the level of the former regime. Exported cement shows a similar tendency.

Conversely, the volumes of imported crude oil and oil products have a sharp drop from the level in the former regime due to the reduction of petroleum supply from the former Soviet Union, resulting in a serious energy crisis in Romania.

The volume of imported phosphate rock as raw materials and exported fertilizer as finished products has shown a continuous decrease as it faces serious international competition and saturated market.

## 1.2. Existing Facilities and Present Operations at the Port of Constantza

The Port of Constantza has a total area of 3,626 ha comprising 1,094 ha on land and 2,532 ha water - aquatorium - enclosed by breakwaters of 18,20 km length, protecting its basins and access waterways against violent waves from the Black Sea. The port has a deep access waterways of 19-23 m deep, where cape-size vessels up to 165,000 DWT are navigable.

The total length of wharves is in present 25 km and will reach 65 km in final, which means 131 berths in present, and 278 berths in future.

The port is divided into two parts, the North Port, which had been expanded towards south during 1967-1973 and where most cargo operations take place, and the South Port, whose construction started in 1978 and has not been completed.

In the North Port, there are 78 berths with quay-side water depths of 7-14,5 m and all types of cargoes: general cargoes in break-bulk, including steel products and bagged cement, containers, solid bulk, including iron ores, coal, coke, phosphate rocks, cereals, and liquid bulk, including crude oil and oil products. In the South Port, there are 53 berths with quay-side water depths of 7-19 m, though some of them have not yet been completed. Additionally, 147 berths are planned to be constructed in the future.

Constantza port has practical all needed facilities. These are specialized terminals for almost all kind of cargoes.

### Solid bulk cargo terminals

Ore and coal terminals means 13 berths with a total length of 2,947 m. Quay-side water depth is in the range 7,0-18,50 m. Four berths are operational in Constantza South, specially designed to transfer operations of the bulk from the ship to shore and to barges which have here direct access from/to Danube -Black Sea Canal.

### Container terminal

Containers are presently handled at a dedicated terminal behind berth no. 52 of the dock no. 9, with and quay-side designed water depth of 9.7 m. The existing container terminal was converted from a conventional berth originally designed for handling steel products in the 1970's, and therefore the yard area, facility layout and water depth do not meet the standards of a modern terminal. The existing terminal is mostly saturated in capacity as a result of the recent sharp increase in the number of containers passing through the port. To meet the ever-increasing demand for container-handling, a modern container terminal will be constructed behind berths no. 121-123 and 128-129 with a final handling capacity of 800,000 TEUs per annum. The project will be completed divided into three phases. The first phase is already an on-going project.

### Grain terminal

Cereals are presently handled at berths no. 17-18 connected with silos of 90.000 tons capacity behind the berths. A quay-side water depth is only 8,0 m. Cereals are also handled at berths no. 31-33 with quay-side water depths of 11,50 m. The water depth is greater than at berths no. 17-18, but still insufficient to receive a bulk carrier of Panamax size which is commonly used in international cereal trade. Moreover, there are no silos behind the berths no 31-33. Hence, the existing cereal-handling facilities will not be able to meet the increasing the demand for loading exported cereals from the port in an efficient and economical way to ensure competitiveness of Romanian cereals in the international market and to attract transit cereals from/to countries along the Danube river. Thus, it is necessary to establish a modern cereal terminal equipped with a sufficient water depth along berths, efficient loaders/unloaders connected with silos with sufficient storage capacity and receiving facilities from land or inland waterways.

### General cargo terminal

Steel products are the major export cargo among general cargo in break-bulk. They are mainly loaded at berths no. 45-46 and 67. Despite the necessity of shore cranes with sufficient lifting capacity to lift heavy and long steel products, there are no available shore cranes at berths no. 45-46 and inefficient mobile cranes are used. At berth no. 67, there is only a railway access, and outdated shore cranes of small lifting capacity are used. Steel products are also loaded at berths no. 38-40. Behind these berths, however, there are no open yards, and therefore, cargoes are forced to be hauled a long distance within the port area. This situation results in inefficient and cost cargo-handling.

### Cement terminal

Cement is exported in bags or bulk mainly at berths no. 23, 47-51 and 68. Bagged cement is loaded at berths no. 23 and 47-51, without transit sheds behind these berths, resulting in costly haul operations. Silos are installed behind berth no. 68.

### Chemical products terminal

A total of 2,260 m for 10 berths can operate chemical products: urea, fertilizer, phosphate, apatite. Berth-side water depth is between 11.50 și 13.50 m. The total traffic capacity is 7.70 million tons/year.

### Liquid bulk cargo terminal

Crude oil and oil products are handled at the berths no. 69-78. The total traffic capacity is about 36 million tons from which 24 million tons for import and 12 million tons for export. Waste oil receiving facilities in compliance with the MARPOL Convention, however, have not yet been well prepared. Hence, it is required to install these facilities to satisfy the convention.

Constantza oil terminal is connected to Borzesti, Ploiesti, Pitești and Midia oil refineries by crude oil pipe lines (14"-21" diameter) and also other small pipe lines for combustibles and petrochemical product.

### Ro-Ro and ferry-boat terminal

In the meantime, to make the most of the geographical advantage of the Port of Constantza and consequently to contribute to the national economy through the promotion of the port/transport business, it is required to promote short sea shipping using RO-RO ships, ferry-boat or barge carriers of a new type across the Black Sea through the port as a part of inter-modal transport connecting Romania and its hinterland with Turkey, Georgia, Russia, Ukraine and their respective hinterlands. To promote the inter-modal transport through the Port of Constantza, it is necessary to prepare specialized port facilities enabling quick dispatch which is essential to attract inter-modal transport.



Since the collapse of the Soviet Union, supply of LNG which has been provided through pipelines from the former Soviet Union/CIS has been reduced to a considerable extent in the chaos. Hence, Romania needs to diversify its energy resources for the purpose of the national security. Under this situation, receiving facilities of LNG and LPG which are presently not installed are required at some Romanian seaport. The Port of Constantza is a candidate for the installation of the facilities, though a careful study needs to be conducted to determine their location from the standpoint of the safety distances required from their potentially explosive nature.

### 1.3 Necessity of Development of the Port of Constantza

In view of these facts mentioned above, the following projects are identified as urgent ones to meet the various demands for the port.

- (1) Establishment of a New Container Terminal ,
- (2) Establishment of a New Cereal Terminal,
- (3) Establishment of a New LNG Terminal,
- (4) Establishment of a New LPG Terminal,
- (5) Redevelopment and Modernization of the North Port Focusing on Improvement of Cargo-Handling Efficiency of Steel Products, Cement etc., by Relocation of the Yards/Sheds and Introduction of Required Cargo-Handling Equipment,
- (6) Preparation of Waste Oil Receiving Facilities in Compliance with the MARPOL Convention,
- (7) Preparation of Facilities to Back Up Inter-modal Transport including Ro-Ro, Ferry and river-barge connection facilities,
- (8) Preparation of passenger terminal,
- (9) Preparation of fruit terminal,
- (10) Preparation of a business center,
- (11) Organization of a naval rescue service.

To proceed with the above projects, as the first step, it is required to conduct a Feasibility Study on Development Project of Port of Constantza within the framework of the Master Plan to be made as part of this study scheme. As mentioned previously, the first phase of establishing the new container terminal at S2 Dock of the South Port is on-going project, and therefore, the project is a prerequisite when making the Master Plan. The second and the third phase projects will be reviewed and might be revised, if necessary, when working out the Master Plan containing various projects to be proposed in view of harmonization and with each other.

## 2. Objectives

In recognition of the above-mentioned background, the objectives of the study are shown as follows:

- (1) To formulate a master plan for the Port of Constantza for the period up to the year 2015,
- (2) To conduct a feasibility study on the projects to be proposed in the short-term plan for the period up to the year 2005,

## 3. Scope of the Study

In order to achieve the objectives mentioned above, the study shall cover following items:

- (1) Review and analysis of the existing data and information

- 1) To collect, review and analyze available data and information, reports and plans relevant to the Study,
  - 2) To review existing development programs and projects for the port,
  - 3) To study the present situation and to identify problems that need to be resolved in the port activities,
  - 4) To study the present situation and future trend in the international shipping and inland transport in the port's hinterland to/from the port focusing on inter-modal transport,
  - 5) To study the present situation and future international trend focusing harbor services.
- (2) To conduct survey on natural conditions
    - 1) Geological condition
    - 2) Topographical conditions
    - 3) Hydrographical conditions
    - 4) Environmental conditions
  - (3) To forecast demand of cargo traffic through the target port in the target year,
  - (4) To formulate a master plan,
    - 1) To study the optimum cargo-handling system including storage, facility layout, water depth along berths, site selection, information system and operations/management system by cargo-handling type, including containers, cereals, LNG/LPG, steel products, cement, Ro-Ro, ferry etc.,
    - 2) To estimate the required scale of facilities and number of machines,
    - 3) To study port facilities to connect sea-going vessels and inland transport measures: road, railway and inland waterway,
    - 4) To make basic layout of port facilities,
    - 5) To estimate costs,
    - 6) To roughly assess economic viability,
    - 7) To conduct initial environmental examination (IEE),
    - 8) To propose adequate management/operations system on a long-term basis.
    - 9) To propose management of harbor services.
  - (5) To formulate a short-term plan
 

Within the framework of the above master plan, a short-term plan shall be formulated.

    - 1) To identify projects that needs to be urgently materialized,
    - 2) To make layout plans of port facilities by project,
    - 3) To estimate the required scale of facilities and number of machines by project,
    - 4) To conduct preliminary design of main facilities by project,
    - 5) To estimate project costs,
    - 6) To conduct environmental impact assessment (EIA),
    - 7) To propose adequate management/operations system on a short-term basis.
    - 8) To propose a systematization plan for North Constantza Port,
    - 9) To propose the solution for the optimization and efficiency of rail way transport in Constantza Port,
    - 10) To analyze the influence and implication of "free zone" in port of Constantza.
  - (6) To conduct feasibility analyses
    - 1) To conduct economic analyses of short-term projects,
    - 2) To conduct financial analyses of short-term projects,
    - 3) To estimate the required scale of facilities and number of machines by project.
    - 4) To analyze the on-going projects and to make proposition in connection with master plan.

#### 4. Study Period

The period of the study shall be 12 months.

## 5. Experts to Participate in the Study

The consultant will prepare the following data :

- composition of team with professional qualification;
- firm general experience (relevant project, country/regional experience, experience for similar works;
- economic situation of firm.

A team for the study shall consist of, but not be limited to the members covering the areas of the following required expertise:

- (1) Leader,
- (2) Port planning,
- (3) Shipping and inter-modal transport,
- (4) Demand forecast,
- (5) Cargo-handling system,
- (6) Cargo-handling equipment,
- (7) Design of infra- and upperstructures,
- (8) Construction program and cost estimate,
- (9) Management and operations,
- (10) Environmental assessment,
- (11) Economic analysis,
- (12) Financial analysis.

The selection condition for team (academic qualification in portuar field, profesional experience in portuar field, knowledge of foreign language)

Also, the consultant will prepare:

-time schedule, period of performance, starting data and estimated cost.

## 6. Reports

The study team shall prepare the following reports in English to its counterpart agency of the Government of Romania:

- (1) Inception Report,  
at the beginning of the first survey,
- (2) Progress Report,  
within three months after submission of the Inception Report,
- (3) Interim Report,  
within three months after submission of the Progress Report.  
This report contains a master plan. The report shall submitted at the beginning of the second field survey.
- (4) Draft Final Report,  
within report contains a short-term plan. The report shall be submitted at the beginning of the third field survey. The counterpart agency may provide its comments on the report not later than one month after the receipt of the report.
- (5) Final Report,  
within two months after receipt of the comments on the Draft Final Report.

## 7. Undertakings of the Government of Romania

To facilitate smooth conduct of the study, the Government of Romania shall take the following necessary measures in cooperation with organizations concerned:

- (1) To provide the study team with available data and information necessary for the study,
- (2) To assign official counterparts during the field surveys.

- (3) To make arrangements for visiting the authorities concerned,
- (4) To provide the study team with office space.

#### 8. Undertakings of the Government of Japan

For the implementation of the study, the Government of Japan will take the following measures:

- (1) To dispatch, at its own expense, a study team to Romania,
- (2) To pursue technology transfer to Romanian counterpart personnel in the course of the study, by way of training in Romania and overseas training in Japan,
- (3) To submit reports prepared by the study team to the Government of Romania.

## 2. 主要面談者リスト

### 主要面談者リスト

#### 運輸省 ( Ministry of Transport )

H.E. TRAIAN BASESCU	Minister
H.E. ALEODOR FRANCU	State Secretary
Mrs. LILIANA BARNA	General Director, General Directorate for Foreign Finance Affairs
Mr. GHEORGHE NAUMOF	Director, Directorate for Regulations and Quality of Services in Seaports and Maritime Navigation
Mr. EMIL UNGUREANU	Head of Foreign Loan Unit
Mr. GHEORGHE BORS	Head of International Co-operation Division, Directorate for Regulations and Quality of Services in Seaports and Maritime Navigation
Mr. DANIEL BADINA	Directorate of Maritime Transport, Head of Port Division
Mr. CHRISTIAN R. CAZACU	Expert

#### コンスタンツァ港湾公社 (National Company Maritime Ports Administration Constantza S.A.)

Mr. RAURENTIU MIRONESCU	General Director
Mr. GHEORGHE MOLDOVEANU	Technical Director, National Company Maritime
Mrs. NICOLETA DOGARU	Head of Foreign Investment Credits Department
Mrs. RALUCA DARABAN	Economist, Foreign Investment Credits Department

#### Design Institute For Roads Water And Air Transport ( IPTANA )

ph. d. CORNEL MARTINCU	General Manager ( The President )
Prof. ph. D. ROMEO CIORTAN	Director of Hydraulic Division

#### 水資源・森林・環境保全省 ICIM ( Ministry of Water, Forest & Environmental Protection )

Dr. MIHAI LESNIC	Scientific director, National Development & Research
ph. D. SERGIU DIACONU	Environmental Impact assessments & Audits

Railway Study & Design Institute

Mr. EUGENIU CEZAR IVANA General manager ( The President )

INCERTRANS - Transport Research Institute

Mr. GRIGORE BUCHI Deputy Manager ( Vice- President )

PETROMAR Constanta

Mr. GABRIEL LONESCU Chief Geologist

PROLIF S.A. Constantza

Mr. SPIRIDONICA ALEXANDRU Chief of Geo-technical study

Administration of Danube Delta Biosphere Reserve

Mr. CEICO TANASE Environmental Inspector of Danube Delta

Project S.A. Constantza ( Local Consultant in Constantza )

Mr. TASE NICOLAE Geologist

GEO FORAJ S.A. ( Local consultant in Constantza )

Mr. STOICA VIRGIL Geolist

日本大使館

三橋 秀方 特命全権大使

城守 茂美 Counsellor

Masanobu YOSHII

Atsutoshi HAGINO Third Secretary

JICA/JOCV ルーマニア事務所

Mr. Hiroaki OKUBO 所長

株式会社 パシフィックコンサルタンツインターナショナル、 コンスタンツァ南港コンテナターミナルプロジェクト

高橋 勝彦 プロジェクトマネージャー

## 3. Q / N

Data / Item	1. Detailed Explanation	2. Provision of Data/Item	3. Availability of Data/Item	4. Place of Data/Item	5. Name of Report & Files
<b>(GENERAL INFORMATION)</b>					
1. Nation-wide data					
1) Statistics for the last 10 years					
a) GNP by sector and by region		⊙	○	CPA	year book
b) Population by region		⊙	○	CPA	year book
c) Agricultural and marine products by main sort and by region		⊙	○	Statistic De	year book
d) Industrial products by main sort and by region		⊙	○	Statistic De	year book
e) Mining products by main sort and by region		⊙	○	Statistic De	year book
f) Foreign trade (quantity and value) by main sort		⊙	○	CPA	
g) Price indices		⊙	○	MOT	National medium-term development strategy
h) Exchange rate		○	○	MOT	Transport Basic information
2) National development plans					
a) Economic development plans		⊙	○	MOT	National medium-term development strategy
b) Transportation development plans		⊙	○	CPA	Transport Basic information
c) Agricultural and fishing development plans		○	○	MOT	National medium-term development strategy
d) Industrial development plans		⊙	○	MOT	National medium-term development strategy
e) Mining development plans		○	○	MOT	National medium-term development strategy
f) Forecast of socio-economic indicators		⊙	○	MOT	National medium-term development strategy
3) Annual budget with breakdown of the last 10years		○	○	MOT	Monitorui Oficial al Romanian
4) Public investment of the last 10 years by sector		○	○	CPA	Transport Basic information
5) Meteorological Records of the last 30 years		○	○	Statistic De	year book
2. Development Plans for Transport Infrastructure in Europe		○	○	CPA	Transport Basic information
1) Development Policy	☆	⊙	○	CPA	Transport Basic information
2) Development of Road Corridor		⊙	○	CPA	Trend of cargo volume by road, ports, railway
3) Development of Rail Transport		⊙	○	CPA	Trend of cargo volume by road, ports, railway
4) Development of Inland Waterway		⊙	○	CPA	Trend of cargo volume by road, ports, railway
3. Environmental policy					
1) Governmental policy for environmental issues		⊙	○	MOT	Romanian regulation
2) Institutional aspects		○	○	MOT	Romanian regulation
a) Law and regulation		⊙	○	MOT	Low on the environmental protection
b) Environmental criteria		⊙	○	MOT	Romanian regulation
c) Related organization		○	○	MOT	Romanian regulation
<b>(TECHNICAL INFORMATION)</b>					
1. Nation-wide Transport System					
1) Network maps (ports, roads, railways, inland waterway, etc.)		⊙	○	MOT/CPA	many
2) Data of cargoes and passengers by each mode		⊙	○	MOT/CPA	many
3) Forecast of cargoes and passengers by each mode		⊙	○	MOT/CPA	many
4) Transportation cost of each mode		○	○	MOT/CPA	many

Data / Item	1. Detailed Explanation	2. Provision of Data/Item	3. Availability of Data/Item	4. Place of Data/Item	5. Name of Report & Files
5) Development policies/plans by each mode	☆	⊙	○	MOT	National medium-term development strategy
2. Governmental Agency Concerned					
1) Organization chart of Romanian Government		⊙	○	MOT	
3) Organization chart of Ministry of Transport		⊙	○	MOT	
4) Responsibility and authority of Ministry of Transport by sector	☆	○	○	MOT	Organization chart
5) Port and shipping organizations	☆	○	○	CPA	company working list in constantza port
3. Ports in Romania					
1) Distribution, function and capacity of each port		○	○	MOT	Romanian ports
2) National Port Development Policy/Plan		⊙	○	MOT	Romanian ports
3) Port Statistic of each port for the last 10 years		⊙	○	MK Sept	Constantza port information
a) Total amount of cargo		○	○	CPA	Constantza port information
b) Volume of cargoes by commodity		○	○	CPA	Constantza port information
c) International export/import cargo		○	○	CPA	Constantza port information
d) Domestic export/import cargo		○	○	MOT	Cargo volume by Romanian ports
e) Foreign trade cargo by country		○	○	MOT	Cargo volume by Romanian ports
f) Transit cargo		○	○	MOT	Cargo volume by Romanian ports
4) Port Management and Operation System		⊙			
a) Categories of port management bodies		⊙	○	MOT	Organization chart
b) Organization charts of port management bodies		⊙	○	CPA	company working list in constantza port
c) Categories of port operation bodies		⊙	○	CPA	Organization chart
d) Organization charts of port operation bodies	☆	○	○	CPA	company working list in constantza port
e) Responsibilities of port management bodies	☆	○	○	CPA	Constantza port information
f) Responsibilities of port operation bodies		○	○	CPA	Constantza port information
g) Funds for port operation		⊙			
5) Port Development System		⊙			
a) Port development scheme	☆	○	○	MOT/CPA	Hearing and many data
b) Funds by Romanian government		○	○	MOT/CPA	Hearing and many data
c) Funds by port management body		○	○	MOT/CPA	Hearing and many data
d) Funds by private sector		○	○	MOT/CPA	Hearing and many data
e) Other funds		○	○	MOT/CPA	Hearing and many data
6) Relevant Laws and Regulations					
a) Port Laws		○	○	CPA	Hearing and reports
b) Design criteria		○	○	CPA	Hearing and reports
c) Other laws or standards concerned		○	○	CPA	Hearing and reports
4. Activities of the Constantza Port					
1) History of Port Development		○	○	MKDept.	Map of Port
2) Trend of International Shipping Cargo Flow	☆	⊙	⊙	CPA	
a) Trend of cargo by commodity		○	○	CPA	many



Data / Item	1. Detailed Explanation	2. Provision of Data/Item	3. Availability of Data/Item	4. Place of Data/Item	5. Name of Report & Files
b) Origin and destination data of port cargoes		○	○	MKDept.	Electronoc File
c) International Transit Cargoes		○	○	MKDept.	Electronoc File
d) Ports and maritime transport networks around Black Sea		○	○	MOT/CPA	Map of corridor
e) Trend of containerization around the Black Sea		○	○	MKDept.	Map of corridor
3) Port Facilities		◎	◎	CPA	many
a) Layout map of port facilities		○	○	CPA	many
b) List of port facilities (type,dimension,capacity, completion date)		○	○	CPA	many
c) Access transportation network		○	○	CPA	many
4) Port Management and Operation	☆	◎			
a) Organization chart		○	○	CPA	Constantza port information
b) Number of Workers		○	○	CPA	Constantza port information
c) Port Tariff Structure		○	○	CPA	Constantza port information
d) Port information systems		○	○	CPA	Constantza port information
e) Efficiency of Cargo Handling (e.g. ton/hr, etc.)		○	○	CPA	Constantza port information
f) Financial condition (Cash flow)		○	○	CPA	Constantza port information
g) Trend of Privatization		○	○	CPA	Constantza port information
5) Existing Port Development Projects/Plans		◎			
a) Current situation of projects		○	○	CPA	many projects are on going
b) Basic philosophy of port plan		○	○	MOT	Ordinance degarding ports and the services
c) Concept of plan by each outlook facility		○	○	MOT	Ordinance degarding ports and the services
6) Canals		◎			
a) Origin and destination data of port cargoes		○	○	CPA	hearing
b) Type of Vessels		○	○	CPA	hearing
c) Volume of cargo by commodity		○	○	CPA	hearing
d) Facilities		○	○	CPA	hearing
7) Related Studies and plans		◎	○	MOT	Seaport development plan
8) Present and future Land Use Plan in and around the Port		◎	○	MOT	Seaport development plan
9) Free Trade Zone project in port area	☆	◎	○	MOT	Seaport development plan
5. Natural Conditions in the Constantza Port					
1) Meteorological conditions					
a) Wind data (wind speed, direction)		◎	○	marine mus	Studiul privind parametrii caracteristici ai futurilor si consecinte ale acestora tarului si constructiilor portuare, Institutul de Cercetari Marine,Constantza, 1994
b) Climate		○	○	Statistic De	Natural commissions for statistics
2) Hydrographic conditions					
a) Wave data		◎	○	marine musium	
b) Tidal current data and tidal level data		◎	○	CPA	hearing
c) Siltation data		◎	○	CPA	hearing
d) Water-depth data		◎	○	CPA	CPA activity

Data / Item	1. Detailed Explanation	2. Provision of Data/Item	3. Availability of Data/Item	4. Place of Data/Item	5. Name of Report & Files
3) Topographic conditions					
Topographical map and/or aero-photograph in and around the port		⊙	○	CPA	CPA activity
4) Chart		⊙	○	CPA	Chart of Constantza
5) Geological conditions					
a) Boring data		X	○	Consul	on going
b) Result of soil tests		X	○	Consul	on going
c) Sounding data		X	○	CPA	CPA activity
d) Riverbed / seabed materials		X	○	CPA	on going
6) Record of Natural Disasters					
a) Earthquake		⊙	○	Statistic De	year book
b) Storm surge		X	○	marine musium	
c) Tsunami		X	○	marine musium	
6. Present environmental conditions in and around the Constantza Port					
1) Environmental protection area by law and regulation, if any		⊙	○	MOT	Low on the environmental protection
2) Precious animals, plants, historic spots (ruins discovered up to the present, etc.), landscape, etc., if any		○	○	MOT	Low on the environmental protection
3) Data on water and air pollution		○	○	MOT	Romanian regulation
4) Geographic distribution about fisheries		○	○	MOT	Romanian regulation
7. Consultants and surveyors					
1) List of consultants		⊙	○	MOT/CPA	
2) Cost of investigation and survey			○	MOT/CPA/	By hearing
a) Boring / soil field test		⊙			
b) Soil laboratory test		⊙			
c) Sounding		⊙			
d) Topographic survey		⊙			
e) Wave observation					
f) Origin-destination survey					
g) Salary for consultants		⊙			
8. Counterpart (List of the counterpart of Romania side)		⊙			

#### 4. 収集資料リスト

番号	カテゴリー	資料の名称	発行年	地域	形態	版型	ページ数	オリジナル /コピー	部数	収集先名称又は発行機関	寄贈 /購入	備考
1	economy	The Natinal Medium-term Development strategy	2000	Ro		A-4		copy	3	Romania		
2	port	Constantza Port Handbook 98-99	2000	Con		A-4		original	3	Constantza port adomi.		
3	Environ.	Romanian Regulation - port waste management-	1999	Ro		A-4		copy	1	Consultants		
4	Environ.	Romanian Regulation - Volume 28-	1997	Ro		A-4		copy	1	Romania Parliament		
5	Environ.	Low on the environmental protection	1996	Con		A-4		copy	1	Romania Parliament		
6	Environ.	Official documents on the protection of black sea	1994	Con		A-4		copy	1	Program coordination unit		
7	economy	Monitorul Oficial al Romaniei	1998	Ro		A-4		copy	1	MOT		
8	port	Cargo volume by Romanian ports	1997	Ro		A-4		copy	1	MOT		
9	port	Ordinance regarding ports and the services	1999	EU		A-4		copy	1	Romanian government		
10	Trans	Towards a european wide transport policy	1997	EU		A-4		copy	1	European parliament		
11	Trans	Trend of cargo volume by road, railway, ports	1997	Ro		A-4		copy	1	CPA		
12	Trans	Transport:Communications Basic Information	1997	Ro		A-4		copy	1	CPA		
13	Trans	Map of Romania/european rail way network		EU	Map	A-3	5	copy	1	CPA		
14	port	Map of Romania/Constantza port		Ro	Map	A-4	4	copy	1	CPA		
15	port	Romanian ports	1995	Ro		A-4	52	original	1	CPA		
16	Trans	Planul National De Dezvoltare a transporturilor	1999	Ro		A-4		copy	1	Ministry of Transport		
17	economy	Economic statistics	1999	Ro		A-4	5	copy	1	Ministry of Transport		
18	port	Port Constantza south - New container terminal		Con	panf.	A-4		copy	1	Ministry of Transport		
19	port	Country report for Romanian ports		Ro		A-4	28	copy	1	Ministry of Transport		
20	Trans	Transport statistics	2000	Ro		A-4	55	copy	1	Ministry of Transport		
21	Trans	National development plan	1999	Ro		A-4	79	copy	1	Ministry of Transport		
22												
23	port	Study list on Constantza Port		Con		A-4	1	copy	1	Ministry of Transport		
24	port	Sea port development plan	1998	Ro		A-4	31	copy	1	MOT(Draft)		
25	port	Organization chart of CPA	2000	Con		A-4	1	copy	1	Ministry of Transport		
26	port	Member of Constantza port component	1999	Con		A-4	1	copy	1	Ministry of Transport		
27	Plan	MOT revenue / balance sheet	98/99	Ro		A-4	2	copy	1	Ministry of Transport		
28	Plan	Port of Constantza Strategy Plan - Harris	1993	Con	rep.	A-4		copy	1	Ministry of Transport		
29	Plan	Free Trade Zone		Con	panf.	A-4		copy	1	FTZ		
30	Plan	Tarife list	2000	Ro		A-4	7	copy	1	Ministry of Transport		Roma

番号	カテゴリ	資料の名称	発行年	地域	形態	版型	ページ数	オリジナル /コピー	部数	収集先名称又は発行機関	寄贈 /購入	備考
31	Plan	Port restructurate development plan		Ro		A-4	21	copy	1	Ministry of Transport		Roma
32	survey	Company profile INCERTRANS		Ro	panf.	A-4		original	1	Ministry of Transport		
33	survey	Company profile S-C-F		Ro	panf.	A-4		original	1	Ministry of Transport		
34	survey	Company profile S.C. IPTANA S.A.		Ro	panf.	A-4		original	1	Ministry of Transport		
35	Plan	Container terminal Market Potential	1999	Con	rep.	A-4	40	copy	1	MOT-CPA-PCI		
36	Plan	Container terminal Scope of Project	1999	Con	rep.	A-4	40	copy	1	MOT-CPA-PCI		
37	environ.	Natural commission for statistics	1999	Ro	book	A-4		original	1	Statistic Department	buy	Roma
38	General	Romanian Statistical Yearbook	1998	Ro	CD	rom	1	original	1	Statistic Department	buy	
39	General	Monthly Statistical Bulletin	2000	Ro	CD	rom	1	original	1	Statistic Department	buy	
40	Plan	World container markets to 2012		Ro		A-4		copy	2	JICA.doc JICA-JOVC Romania		E-mail
41	Plan	OECD Container terminal development projects	1996	Con		A-4	cover	copy	1	OECD - SAFROF final report		
42	General	Fairplay ports guide ROMANIA		Ro	rep.	A-4	30	copy	1	MOT		
43	Plan	Romanian general transport master plan study	1999	Ro	rep.	A-4	22	copy	1	Executive summary, Rom-group		
44	Plan	Ditto, but Interim Report I	1998	Ro	rep.	A-4	111	copy	1	PROGONOS, associated Rom-gr		
45	Plan	Port statistics 1990-1999	2000	Ro	rep.	A-4	3	copy	1	MOT		
46	General	List of major company working in Constantza port	2000	Con		A-4	1	copy	1	MOT		
47	General	Constantza Port Information	1998	Con	CD	rom	1	original	1	MOT		
48	General	Map of Romania		Ro	map	B-1	1	original	1		buy	
49	General	Map of Constantza		Con	map	B-1	1	original	2		buy	
50	port	Constantza Port Chart	1994	Con	map	B-1	1	original	1	CPA		
51	port	Constantza port rocky sea bed	2000	Con	map	B-1	1	copy	1	CPA		
52	port	Constantza port map	1998	Con	map	B-2	1	original	4	CPA		
53	transport	Transport map of euro-black sea corridors		euro	map	B-2	1	original	3	CPA		
54	port	Container terminal project on pier II, south port	on going	Con	rep.	A-4	1	copy	1	CPA Cover only = on going		
55	transport	Map of inland waterway europe-black sea	1997	euro	map	A-1	1	original	1	CPA		
56	port	Constantza port annual report 1999	1999	Con	rep.	A-4	18	original	2	CPA		
57	port	Constantza port	1996	Con	map	B-1	1	original	1	CPA		

## 5. ローカルコンサルタントリスト

## ローカルコンサルタントリスト

No.	コンサルタント名	業種	電話・(FAX.)	所在地・他
1	Railway Study & Design Institute	土質調査 測量 社会調査	01-222-37-69 (01-312-31-45)	Bucharest
aa) 旧ルーマニア国鉄の鉄道建設技術陣が、民営化に伴って作った会社である。 当局の話では、同国では最多の土木技術者を抱えているとのこと。 bb) 日本との交流も盛んであり、JICAの研修制度等の参加者も多いとのこと。 cc) 運輸省関係で民営化された大手の3社で、測量・土質調査等の現場調査に強み。				
2	S.C. IPTANA S.A.	土質調査 測量 社会調査 海洋調査	01-638-55-95 (01-312-14-16)	Bucharest
aa) 旧運輸省港湾及び港湾建設技術陣が、民営化に伴って作った会社である。 bb) 同国の港湾関連のコンサルや調査業務を優先的に行い、技術の足りないところ等は上記の鉄道調査設計・研究会社などに一部再委託している。 cc) 現在の南港プロジェクトでは、外国企業と協力企業としてJVで参入している。				
3	INCER TRANS	社会調査 環境評価 土質調査 測量 経済・財務調査	01-666-43-51 (01-224-13-70)	Bucharest
aa) 運輸部門のソフト部門を専門とするシンクタンクコンサルである。 bb) 道路、港湾、鉄道部門にとどまらず、大都市の交通網調査やGIS関連の調査等社会調査全般をやっている。交通量調査や住民意識調査に実績多い。				
4	PROLIF S.A. Constanta	土質調査 測量	041-64-11-89 (041-66-71-73)	Constantza
5	Project S.A. Constantza	土質調査 測量	041-639368	Constantza
6	GEOFORAJ S.A.	土質調査 測量	041-660025/263	Constantza
7	National Institute for Environment ( ICIM )	土質試験 水質試験 環境調査・評価	041-221-0990 (40-1/2219204)	Bucharest
aa) 環境庁所属の研究機関で、民間依頼の土質や水質試験を行っている。また、環境影響評価と生態系・大気質・水質・土壌調査など実施可能。				
8	PETROMAR Constanta	海上土質調査	041-583031/147	Constanta
aa) 海上でのボーリング機器を所有するルーマニア唯一の企業。700GT/34人乗組みの作業船所有。地質学者を多く抱え、ICIMと技術交流・協力を行っている。				