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Report No: 18433-CHA

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$71 MILLION

TO THE

PEOPLE'S REPUBLIC OF CHINA

FOR A

CONTAINER TRANSPORT PROJECT

FEBRUARY 16, 1999

Transport Sector Unit
East Asia and Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective May 1998)

Currency Unit	=	Yuan
Yuan 1.00	=	US\$0.12
US\$	=	Yuan 8.3

FISCAL YEAR

January 1 - December 31

ABBREVIATIONS AND ACRONYMS

CAS	- Country Assistance Strategy	NCB	- National Competitive Bidding
CGA	- Customs General Administration	PFB	- Provincial Finance Bureau
CPG	- Central Procurement Group	PHRD	- Population and Human Resources Department
CPMO	- Central Project Management Office	PIP	- Project Implementation Plan
COSCO	- China Ocean Shipping Company	PPLG	- Provincial Project Leading Group
EDI	- Electronic Data Interchange	PPMO	- Provincial Project Management Office
EIR	- Equipment Interchange & Receipt	PSB	- Public Security Bureau
ERR	- Economic Rate of Return	QCBS	- Quality and Cost based Selection
IAAS	- Internationally Acceptable Accounting standards	RMC	- Bank's Resident Mission in China
ICB	- International Competitive Bidding	SA	- Special Account
ICD	- Inland Container Depot	SDPC	- State Development Planning Commission
IBRD	- International Bank for Reconstruction and Development	SEA	- Sectoral Environmental Assessment
IDA	- International Development Agency	SETC	- State Economic and Trade Commission
ISO	- International Standards Organization	SFB	- Selection under Fixed Budget
ITC	- International Tendering Company	Sinotras	- China National Foreign Trade Transportation Group
JV	- Joint Venture	SOE	- State Owned Enterprise
MFB	- Municipal Finance Bureau	SO2	- Sulphur dioxide
MIS	- Management Information Systems	TA	- Technical Assistance
MPLG	- Municipal Project Leading Group	TEU	- Twenty-foot Equivalent Unit
MOC	- Ministry of Communications	THCC	- Tianjin Harbor Container company
MOF	- Ministry of Finance	TPA	- Tianjin Port Authority
MOR	- Ministry of Railways	TOR	- Terms of Reference

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China
Container Transport Project

Project Appraisal Document

East Asia and Pacific Region
Transport Sector Unit

Date: January 25, 1999	Task Team Leader:	Shunso Tsukada
Country Director: Yukon Huang	Sector Manager:	Jitendra N. Bajpai
Project ID: CN-PE-3653	Program Objective Category:	Environmentally Sustainable Development
Lending Instrument: SIL	Program of Targeted Intervention:	[] Yes [X] No

Project Financing Data	[X] Loan	[] Credit	[] Guarantee	[] Other [Specify]
For Loans/Credits/Others:				
Amount (US\$m/SDRm): US\$84 million				
Proposed terms:	[]	Multicurrency	[X]	Single currency, specify US\$
Grace period (years): 5	[]	Standard	[]	Fixed
Years to maturity: 20	[]	Variable	[X]	LIBOR-based
Commitment fee: 0.75 %				
Front-end fee 1%				
Financing plan (US\$m):				
Source	Local	Foreign	Total	
Local governments	10	10	20	
Cofinanciers				
IBRD		71	71	
Project enterprises	44	13	68	
Other (specify)	5	6	11	
Total	59	100	159	
Borrower: People's Republic of China				
Guarantor: Not applicable				
Responsible agency(ies): Tianjin Municipality, Hebei Province, Zhejiang Province, Inner Mongolia Autonomous Government				
Estimated disbursements (Bank FY/US\$M):	1999	2000	2001	2002
Annual	21.1	41.3	8.0	0.4
Cumulative	21.1	62.4	70.3	70.7
2003	0.2	0.1		
2004	70.9	71.0		
Financing available without guarantee?:	[X] Yes	[]	No	
If yes, estimated cost or maturity: Interest 9 %; and terms: less than 1 year				
Project implementation period: 5 years				
Expected effectiveness date: 06/18/1999				
Expected closing date: 06/30/2005				

Introduction

China's foreign trade has more than doubled in the last five years from US\$109 billion in 1991 to US\$274 billion in 1996 with associated changes in commodity mix from low value to high value cargo. However, this growth has been regionally unbalanced. Coastal regions have grown rapidly, while those in the interior have fallen progressively behind in export and import activities. Interior provinces account for 63 percent of population, but they account for only 17 percent of foreign trade. This inequality in foreign trade between interior and coastal regions has aggravated existing regional income disparities. Unless transport links connecting inland regions to coastal regions are improved, regional disparities are likely to grow further in the future.

Containers offer a fast, safe and cost effective means of transportation in exporting and importing commodities; they are easily transferred from one mode of transport to another; they enable operators to offer door-to-door, land-sea through services, with predictable delivery times; and they reduce pilferage en route. For these reasons, world-wide, 80 percent of general cargo, measured in terms of value, and 50 percent in terms of weight, now move by containers. Thus, they effectively shrink economic distances between coastal ports and inland production centers, and can stimulate import and export industries in the hinterland. Many companies in developed countries are now unwilling to place orders with factories located in areas where there are no container services..

Over the last decade, China's international container shipping has grown rapidly with port throughput rising from 2.2 million TEUs in 1991 to 8.1 million in 1996 (See Annex 17 for overall container traffic in China). Still, most of the growth has been confined to the coastal provinces; only 24 percent of seaborne containers (which are mostly owned and handled by Cosco and Sinotrans) travel beyond port cities). Indeed, most are stripped in ports and their cargoes are carried in break-bulk to inland destinations. As a result, the benefits of container transport, as a means for door-to door or dock-to-dock transport, have yet to be realized in these localities.

Recognizing the critical importance of developing an inland distribution system for seaborne containers, the Chinese Government and the Bank jointly undertook a sector study of transport logistics in 1994. This joint effort resulted in the production of the sector study, "Container Transport Services and Trade" (Gray Cover Report No. 15303-CHA, October 1996). This project responds to the study's principal recommendation to initiate a pilot project to develop intermodal container links along selected corridors between gateway ports and inland destinations.

A. Project Development Objective

1. Project development objective and key performance indicators (see Annex 1):

The project is aimed at facilitating inland penetration of seaborne containers from gateway ports to inland cities, thus contributing to reducing economic disparities between coastal and inland areas.

Its developmental impact would be measured by four performance monitoring indicators: (i) the value of imports and exports to and from project cities; (ii) the number of containers handled at project inland container depots (ICDs) located at the ends of the pilot corridors; (iii) the number of containers handled at Tianjin Harbor Container Company (THCC); and (iv) number of boxes per vessel hour at THCC; and (v) average container cycle time between gateway ports and selected ICDs.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project (see Annex 1): CAS document number: R98-107 Date of latest CAS discussion: 05/28/98

A major objective of the CAS is to help alleviate infrastructure bottlenecks. This objective would be realized by increasing the productivity of existing infrastructure through: (i) facilitating transshipment between different modes of transport; (ii) improving service quality (less cargo damage and pilferage en route) by using containers; and (iii) reducing excessive concentration of container handling activities at port areas by moving them to less congested inland locations.

The project would provide inland provinces with better access to seaports. This is in line with the Chinese Government's policy to alleviate the regional disparity between coastal and interior regions. The CAS has also stressed the importance of "assisting local governments to develop income generating programs in lagging provinces".

2. Main sector issues and Government strategy:

A sector study carried out jointly by the State Economic and Trade Commission (SETC) and the Bank identified six major impediments to the efficient inland distribution of seaborne containers.

(a) Uncoordinated Government responsibilities. Government agencies are structured along modal lines. Many deal with intermodal issues solely from their own perspective, passing laws and regulations without coordinating with the others. The result is an array of overlapping jurisdictions and fragmented legal structures. Compounding this problem is the government agencies' involvement in intermodal operations either in their own right or through their affiliate enterprises. Although efforts have been made to separate the regulatory and operational functions, quasi-collusive relationships between the state and enterprises still persist.

(b) Lack of effective competition in intermodal markets. Intermodal service in China has been dominated by two state owned enterprises (SOEs), Sinotrans and Cosco groups. Although this dominance has been declining in the coastal areas, these two giant operators still enjoy more than three fourths of the market share *in inland market*, largely due to their nation-wide service network. For instance, Sinotrans has 56 subsidiaries, covering capital cities of all provinces and major port/air port cities, and 45 domestic joint ventures based in major load centers in China. In addition, these two operators have door-to-door service capability by offering combined services of freight forwarding, shipping agency and trucking services, allowing them to continually dominate the inland distribution markets. This dominance has, however, resulted in costly and less user oriented service provision.

(c) Lack of container handling facilities and equipment at inland locations. The lack of inland container handling facilities has made container transport to and from inland points costly. This does not allow containers to be kept at inland locations. In addition, the limited availability of customs clearance function does not permit container cargoes to be carried in bond, thus necessitating containers to be inspected again at seaports. Compounding this problem is the limited availability of empty containers and container trucks. Thus, shippers in these cities have to wait for empty containers and container trucks to be relocated from the coast to the interior, which adds to the time and cost.

(d) Inadequate transport links leading to inland cities to ports. The shortage of transport capacity is a long-standing problem in China's transport sector. The lack of rail capacity has limited shippers' access to cost-effective long-distance service, the most critical element for moving cargo to inland destinations. Trucking service is also poor due to underdeveloped truck manufacturing technologies and the limited highway network system.

(e) Lack of user orientation of port container terminals: Container terminals in Chinese ports have been traditionally operated by port authorities or their affiliate state-owned enterprises (SOEs), but recently an increasing number of ports have decided to get the private sector participate in terminal development and operation. These cases are found in Shanghai, Yantian, Xiamen and Shekou, but a common problem is that this has created another monopoly by the private sector operator, bringing little benefit to shippers (e.g. a sharp hike in container handling charges). The container operations at Tianjin Port are currently carried out by two SOE terminal operators. However, no genuine competition exists among them since both are 100% owned by Tianjin Port Authority (TPA), which has resulted in lack of user orientation. In addition, a recent Bank team's review of TPA's container operations has revealed relative low productivity of its container handling companies. This is due to several factors including the aged container handling equipment and the lack of practices of setting a cut-off time in accepting containers at port container yard

(f) Onerous cross-border inspections. Although cross-border inspections have improved since the mid-1980s, they still delay containers at points of entry. Repeated inspections by different agencies often cause frustration to exporters and importers. The inconsistent application of regulations have confused foreign shippers and delays the process. Cumbersome customs procedures for bonded transit to inland destinations discourage importers to clear their cargo at inland locations, perpetuating the practice of opening containers for customs clearance both at port areas and again at inland destinations for discharging containers.

3. Sector issues to be addressed by the project and strategic choices:

1) The project addresses the above sector issues in such a manner as described below.

(a) Closer coordination among relevant agencies and the establishment of arm's length relationships between the Government and intermodal operators: Responding to the recommendation of the sector study, the Chinese Government has established a vice-ministerial level group in January 1996 to improve coordination among different agencies with regard to policy issues associated with container transport and trade facilitation. In addition, the project would establish a users' group in which shipping lines, freight forwarders and government officials would meet to regularly discuss issues associated with intermodal operations. This would help resolve problems encountered. The project also requires the conversion of state- or collectively- owned enterprises into limited liability or stock companies so as to establish an arm's length relationship between regulatory agencies and inland container depot (ICD) operators.

(b) Introduction of effective competition: The project will address this issue by enabling project ICDs to offer alternative service options to inland exporters or importers in inland distribution markets that has been dominated by Sinotrans and its affiliate enterprises. The project is also designed to bring in intra-port competition between two SOE terminal operators in Tianjin Port by establishing a level playing field for their activities.

(c) Development of common-user ICDs at inland locations. The project would assist qualified enterprises to develop ICDs with custom clearance functions and to accept containers of all shipping lines. This would enable inland shippers to get their cargo transported to and from seaports in a safer and more cost effective manner.

(d) Capacity expansion of transport infrastructure. Since this capacity issue has been and is being addressed by the other Bank projects in the transport sector, this project would not directly deal with this issue. It would, however, address the institutional issue by eliminating policy restrictions which impede smooth movement of cargoes along the existing infrastructure (such as elimination of miscellaneous charges often levied to highway container tractor trailers en route).

(e) Enhancement of berth productivity: In order to increase berth productivity, the project would provide THCC with funds for upgrading the container handling facilities. The project would also address this issue by initiating a port efficiency enhancement study with the aim of reforming the current operational practices which lower productivity.

(f) Streamlining of cross-border inspections: The project will help streamline cross-border inspections by initiating a pilot program to reduce the percentage of sample checking for customs clearance. In addition, CGA has decided to undertake pilot programs to simplify customs procedures for bonded transit of seaborne containers to inland destinations (for three sections from Tianjin to Beijing, from Dalian to Harbin, and from Yantian to Changsha).^{1/}

2) Strategic Choices: Three issues required conscious decision in designing the project structure:
(a) experimental approach; (b) private versus public sector development; and (c) container haulage services as a part of ICD operations:

(a) Experimental approach: Developing an efficient inland distribution system requires broad based policy reforms of the existing intermodal arrangements, together with the establishment of new operational systems. Many of these reforms and system development should be tested before the changes are adopted on a nation-wide basis. In this context, the Chinese Government and the Bank have agreed to launch a pilot project to experiment with the principal reform elements. Two pilot corridors were selected based on several selection criteria (see Section 8 for details, and Chart 2 for the location of the corridors). The major consideration in selecting pilot corridors were: (i) the pilot corridors should not be chosen from those which could arouse a strong interest among the private sectors investors (such as the Yangzhe River corridor and the Hong Kong-Wuhan-Zhengzhou-Beijing corridor), but at the same time: (ii) the pilot corridors should be financially and economically viable so as to demonstrate the commercial viability of intermodal operations in inland markets, and thus trigger the future investments by the private sector. There were not many corridors which met these two conflicting requirements, but two corridors, one extending from Tianjin Port through Hebei Provinces to Inner Mongolia Province, and the other, from Shanghai Port through Zhejiang Province to Jiangxi Province (Jiangxi Province later decided to withdraw its application for borrowing from the Bank, but still remain as a beneficiary of the technical assistance program^{2/}), meet these criteria.

(b) Private versus public sector provision of services: The possibility of the private sector involvement in the ICD operators was considered during the project design stage. However, it was concluded that the private sector approach is not effective in realizing the project objective at this stage of the development of the two pilot corridors. The main reasons are as follows:

^{1/} This CGA's pilot program was originally intended to be a part of the policy actions, but it was put out side of the project since it would be carried out regardless the progress of the proposed project.

^{2/} Jiangxi Province would participate in TA activities without borrowing the money from the Bank.

- Because of the commercially oriented nature of the private sector, their investment would most likely be concentrated on coastal areas. This would defeat the project objective of stimulating economic development of inland provinces.
- Inland distribution of seaborne containers is still at a very early stage of development in China. At this stage, emphasis should be placed on the development of proper institutional and policy framework. This would require extensive reform efforts by various line ministries, along with their strong institutional support to the project (e.g. the establishment of customs office in the project ICDs). Policy and institutional reforms could not be realized by the private sector investments.
- Shipping lines or intermodal operators are interested in ICDs to handle their own containers, but not common user type facilities serving all shipping lines as envisaged in this project.
- Those shipping lines and intermodal operators are interested in strategically located inland load centers with a large traffic potential such as Wuhan, but not in those small or medium size cities selected for this project for developmental purposes.
- Given the current volume of container traffic, container handling businesses in the project cities are still risky and entail substantial uncertainties.
- As to the port container terminal, Tianjin Port has been cautious in introducing the private sector in its development and operation. Extensive discussion with Port Authority indicated that the immediate and full fledged privatization of the container terminal operation is not a realistic nor viable approach. The introduction of the intra-port competition between two terminal operators, combined with the introduction of the private sector in one of the terminal operators, would present a gradual but more realistic solution towards the eventual goal of providing user oriented and cost effective container services.

(c) Container haulage services as a part of ICD operations: SETC has requested the Bank to finance tractor trailers as an integral part of the ICD operations. In its view, the provision of container haulage services is an essential element of service operations of ICDs as required by design standards issued in 1990 by the State Technology Supervision Bureau (GB/T 12419-90). Because of the commercially oriented nature of the trucking services, the team has reserved its response until the following two questions being answered: (i) is there any justifiable reason for ICD to provide container trucking as an essential part of the ICD operations? and (ii) if yes, is there any other financing institution beside the Bank?

- As to the first question, the team found two justifiable reasons for an ICD to provide trucking services as a part of its ICD operations. The first reason is the need for the project ICDs to provide competitive services over those currently provided by large state owned freight forwarding services which dominate internmodal operations in China, particularly inland operations. Sinotrans and Cosco have provided integrated services combining container handling and trucking together, which has set a norm of intermodal services in China. In order for project ICDs to effectively compete with those two dominant freight forwarders, ICD operators should be able to provide comparable services including container trucking services.

The second reason relates to a unique feature of container traffic pattern In China, outgoing traffic (export) far exceeds inbound traffic (import) (typically 2/3 for export and 1/3 for import traffic). Given the limited availability of container trucks at inland location, inland shippers have to get tractor trailers relocated from the coastal regions to inland for exporting their cargo via sea-ports. If locally based ICDs have storage facilities of empty containers, together with haulage services, the needs of relocating empty containers would significantly be reduced.

- Regarding the second question, the team found that the type of ICDs envisaged in the proposed project would have virtually no chance to get loan from commercial banks. Interviews conducted with commercial banks revealed that, given a long queue of customers in front of bank offices, commercial banks do not have any incentive to make loans to small companies launching into new businesses. Loan officers prefer dealing with a large and high visibility company with a good prospect of generating a large amount of revenue which is likely to be deposited in his bank. Furthermore, commercial banks in China are very reluctant to finance longer term loans given the higher risks associated with it. They usually finance only working capital with the less-than-one-year payback period. The team also examined the possibility of leasing, but it was found that leasing companies are even less accessible for those companies such as project ICDs. Because of difficulty in enforcing rights and obligations of the lessors, leasing companies are extremely selective in choosing lessees. A joint venture leasing company which the team interviewed during the mission stated that it would finance only top 500 companies with high credit worthiness. These findings are indicating that the Bank and other international financing or bilateral aide agencies would be the only possible choice for the project ICDs.

C. Project Description Summary

1. Key policy and institutional reforms supported by the project:

Policy framework. The successful implementation of the project requires the removal of policy impediments to the efficient container processing. An operational feasibility survey carried out by SETC in February 1997 identified a number of impediments existing along the two pilot corridors including those listed in the table below. Several actions have been taken to remove these impediments, still some more need to be taken as illustrated in the table below. For those actions to be taken in the future, action plans were prepared to ensure their implementation (See Annex 11).

Institutional Impediments	Actions already taken	Action to be taken /a under the project
Port Container Terminals 	<ul style="list-style-type: none"> ■ There is no genuine competition between two SOE terminal operators at Tianjin Port. ■ Berth productivity is relatively low due to a number of factors, both physical and operational, including longer idle time at berths. 	<ul style="list-style-type: none"> • Introduce an intra-port competition between two SOE terminal operators through private sector participation. • Initiate a study for enhancing berth utilization and user orientation [TPA].
Line-Haul (Rail) 	<ul style="list-style-type: none"> ■ Rail tariffs for wagon load cargoes are comparatively low, resulting in slow shift from wagon load to container transport. ■ 45 days advance booking was required for securing rail wagons. 	<ul style="list-style-type: none"> • Rail container tariffs were readjusted to narrow the gap between container and wagon load tariffs ('97) [MOR]. • Advance booking requirement was reduced to less than 1 day ('96) [MOR].
Line-Haul (Roads) 	<ul style="list-style-type: none"> ■ Use of tractor trailers were not allowed separated. ■ ISO container transport was subjected to additional permits and extra charges because they are regarded as heavy cargoes 	<ul style="list-style-type: none"> • A joint regulation by SETC/MOC/PSB was issued to allow separate registration ('96) [MOR]. • A new Highway Law declassified ISO containers from being classified as heavy cargoes ('97) [MOC]. • Promulgate a regulation for implementing this policy [MOC].
Inland Container Depots 	<ul style="list-style-type: none"> ■ Container handling facilities with dry port functions are lacking at inland cities. ■ Lack of clear corporate governance for the ICD operations 	<ul style="list-style-type: none"> • Make customs clearance available at project ICDs [Municipalities/Provincial Gateway Offices]. • Convert the project ICDs into limited liability companies or stock companies in accordance with the new Company Law ('98). (SETC) • Develop plans for private sector participation for those ICDs with good financial performance (ICDs).
Customs & Other Inspection	<ul style="list-style-type: none"> ■ Frequency of sampling check for customs clearance is higher than international standards. 	<ul style="list-style-type: none"> • Initiate a pilot program at Hangzhou for lowering the sampling % from 10% to 5% [PPMO].

N.B. Agency in [] is an agency responsible for its implementation.

2. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

Within the above policy framework, the project is structured to include two investment components.

Components	Category	Cost Incl. Contingencies (US\$M)	% of Total	Bank-financing (US\$M)	% of Bank-financing
A. Develop common-user ICDs with customs clearance function in two pilot corridors. Funds would be provided to qualified ICDs for: (i) the construction of ICD facilities; (ii) the purchase of container handling equipment, container trucks and EDI/MIS; and (iii) technical assistance (TA) for enhancing operational and managerial capability.	Physical & Institutional-building	85	54%	33	47%
B. Upgrade container handling capacity at Tianjin Port. Fund would be provided to Tianjin Port Authority for: (i) the purchase of gantry cranes and other container handling equipment; and (ii) TA for enhancing berth productivity and for establishing "a level playing field" for the intra-port competition between two terminal operators.	Physical & Institutional-building	73	46%	37	53%
	Total	159	100	71	100

Note: The above are rounded-up figures.

3. Benefits and target population:

The primary beneficiaries of the project would be export and import industries in project provinces, including land-locked provinces such as Inner Mongolia. If the project is successfully implemented, those beneficiaries would have better and more reliable access to foreign markets, which would, in turn, result in enhancing the international competitiveness of exports from these provinces. Establishment of intermodal links to seaports would also increase the attractiveness of these provinces as potential sites for foreign direct investments.

Another group of beneficiaries would be foreign shipping lines and freight forwarders. Currently, most of these operators do not offer door-to-door transport services to inland load centers. The envisaged policy reforms would contribute to the creation of a more competitive business environment, which would eventually benefit shippers, both Chinese and foreign.

4. Institutional and implementation arrangements:

Financial arrangements: The Bank would extend the loan to Ministry of Finance (MOF) which would, in turn, onlend to four provincial governments (Hebei Province, Zhejiang Province, Inner Mongolia Autonomous Region and Tianjin Municipality), more specifically their provincial finance bureaus (PFBs). PFBs would further onlend it to municipal finance bureaus (MFBs). MFBs would then onlend the money to selected project enterprises. The on-lending terms and conditions from MOF to PFBs, from PFBs to MFBs, and from MFBs to project enterprises, would be the same as the Bank's standard terms and conditions. Foreign exchange risks would be assumed by project enterprises. The project would be implemented over the five years, from January 31, 1999 to December 31, 2004. The loan will be closed on June 30, 2005. During this period, a mid-term review would be held in June, 2001.

Project management: SETC would be responsible for the overall coordination, and for ensuring the smooth implementation of the project. It would: (i) formulate project management rules, and guide provincial governments based on these rules; (ii) coordinate with central government agencies with regard to the implementation of policy reforms and project execution; (iii) liaise with the Bank on all aspects of the project implementation including the organization of project launch workshops; and (iv) supervise and evaluate the implementation of the project. These SETC's functions would be carried out through Central Project Management Office (CPMO), established in July 1997 by Government Decree. CPMO is headed by Deputy Director of Economic Operations Department of SETC with support of two deputies and full-time or part time staff including procurement experts, an economist, an engineer, a financial specialist and a EDI specialist.

The arrangements for the project management differs from a ICD component to a port component. The ICD component would be managed at three levels: central, provincial and municipal/enterprise levels. At central level, CPMO would be involved in several activities including: (i) the management of procurement of goods, and provision of necessary guidance to the provincial governments with regard to the procurement of civil works; (ii) the management of technical assistance programs including the procurement of consultancy services and organization of study tours/training; and (iii) the compilation of progress, financial and audit reports to be submitted to the Bank.

At the provincial level, provincial governments would be involved in project specific activities including: (i) the administration of Special Accounts; (ii) the approval of withdrawal application of loan proceeds; (iii) the management of procurement of civil works and participation in the evaluation of procurement of goods; (iv) the selection of participants for foreign study tours and training in China; and (v) the compilation of progress, financial and audit reports to be submitted to CPMO. These functions would be carried out through Provincial Project Leading Groups (PPLGs) and Provincial Project Management Offices (PPMOs). PPLG is headed by Vice Governor (in Hebei, and Inner Mongolia), General Secretary of Provincial Government (Zhejiang) or Vice Major (Tianjin Municipality) and typically consists of representatives of provincial economy and trade commission, planning commission, finance bureau and communications department. PPMOs is headed, in most cases, by chief of provincial economic and trade commission and staffed by trained and capable full time and part time staffs.

At the municipal/enterprise level, the sub-projects will be executed by the project enterprises under the supervision of the municipalities. Municipalities would establish Municipal Project Leading Groups (MPLGs) headed by vice-mayors of the municipalities and consisting of relevant departments in the municipalities. MPLGs would also be supported by a limited number of full-time and part time staff. Major functions of MPLGs include: (i) provision of assistance to enterprises for the mobilization of local counterpart funds; (ii) securing of the payback from the project enterprises from project enterprises; (iii) the compilation of progress, financial and audit reports to be submitted to PPMO; and (iv) the endorsement of withdrawal applications of loan proceeds to be submitted by project enterprises. Under the supervision of the MPLGs, the project enterprises will implement the sub-project. Their functions include: (i) the construction of ICD facilities through selected contractors; (ii) the purchase and installation of equipment through agreed procurement procedures; (iii) the withdrawal of the loan proceeds, (iv) the management of the project accounts, (v) the preparation of financial statements and securing audit service; (vi) the implementation of agreed actions; (vii) the preparation of progress reports; and (ix) maintaining an effective financial management system; and (x) the implementation of environmental mitigation plans.

The port component would be carried out by TPA. TPA would be responsible for: (i) the administration of Special Account; (ii) the implementation of procurement under the guidance of CPMO; (iii) the withdrawals of loan proceeds and the management of the project accounts; (iv) the preparation of progress, financial and audit reports to be submitted to CPMO; (v) the selection of participants for study tours/training; (vi) implementation of technical assistance program with coordination with CPMO; (vii) implementation of policy actions; and (viii) maintaining an effective financial management system.

Under the supervision of the TPA, THCC would implement: (i) the upgrading of container terminals; (ii) the installation of equipment; and (iii) the implementation of environmental mitigation plans.

Procurement: Because of the involvement of many executing agencies, SETC has established a principle of "managing centrally and implementing locally" with regard to the procurement. Under this principle, CPMO coordinates the whole process of procurement. For goods to be procured under International Competitive Bidding (ICB), CPMO will engage international tendering companies (ITCs) for processing documentation. Central Procurement Group (CPG) was established to make a joint decision by CPMO and provincial governments. CPG will approve bidding documents and evaluation reports. After its approval, CPMO will send them to the Bank for its review through ITCs. Contracts with suppliers will be signed by the ITC, and cosigned by project enterprises. For goods procured under National Competitive Bidding (NCB) and National Shopping procedures, the same arrangements would be applied except for the use of ITC which is not required for NCB and NS procurement in China.

Since all civil works are small in scale and scattered in many provinces, and thus less likely to arouse interest of foreign contractors, civil works would be carried out in accordance with the National Competitive Bidding (NCB) procedures. Different from procurement of goods, PPMOs would be responsible for civil works procurement. PPMOs would engage qualified design institutes for the preparation of bidding documents. PPMO will send bidding documents to CPMO for its review. CPMO will then send them to the Bank's Resident Mission in China (RMC) which is authorized to issue no-objection. After bid opening, PPMOs will prepare evaluation reports, which would again be reviewed and approved by CPMO and later by RMC. Civil works contracts will be signed by project enterprises. Project enterprises will engage independent engineers to supervise the construction of ICD facilities.

For services, CPMO will prepare a TA implementation plan by March 15, 1999 which will be submitted to the Bank for its review. Based on the approved TA implementation plan, CPMO will recruit consultants in accordance with the methods described in Annex 6.

Procurement methods, model bidding documents to be used and thresholds to be applied are detailed in Annex 6.

Disbursement: To facilitate disbursements under the project, four separate Special Accounts would be established in commercial banks satisfactory to the Bank and located in each of four provinces. These Special Accounts would be accessible by Provincial Finance Bureaus (PFBs). Detailed procedures would be explained in Annex 6.

Project accounts, audit and reporting: Project enterprises will maintain complete project accounts, while MFBs and PFBs will keep simpler accounts which record only fund flow. These offices will be staffed by qualified accounting staff. Accounts and documentation to support the Statement of Expenditure (SOEs) will be maintained by project enterprises, and readily available for review by visiting Bank missions. Project accounts at each level would be audited by Local Audit Administrations, and audit reports will be sent to higher level PMOs. CPMO will compile all audited project accounts and audit reports, and send them to the Bank. In addition, project enterprises will prepare enterprise financial statements and get them audited by local Audit Administrations. These audited financial statements would be submitted to higher PMOs and sent to the CPMO. CPMO will then send them to MOF and the Bank for their review.

Financial management system: The proposed project would be carried out by two types of executing agencies: (i) an existing entity—TPA; and (ii) new entities to be established in late 1998—ICD operators.

As to the TPA, a Bank's financial expert has assessed its financial management capability in terms of its staffing, accounting system, the preparation of financial statements, internal control system and auditing. The financial management system of TPA was found adequate except for the arrangements for auditing. Although TPA's financial reports have not been audited by an independent auditor to date, TPA agreed to have its project accounts and corporate financial statements audited by an independent auditor satisfactory to the Bank. TPA also agreed to submit required progress reports on the financial status of the TPA to the Bank in accordance with the financial management reporting arrangements agreed between PRC and the Bank on January 12, 1999.

Regarding the ICD, in consideration of the fact that the project ICDs are new entities, it was agreed that the project ICDs would: (i) recruit adequate numbers of qualified staff for the financial management; (ii) maintain adequate internal control; and (iii) have their project accounts and financial statements audited by an independent auditor satisfactory to the Bank. As to the accounting standards, it was further agreed (iv) to use the accounting standards for the stock companies, developed by MOF in January 1998 which are much closer to internationally acceptable accounting standards (IAAS) than the previous Chinese standards. To facilitate the adoption of these new standards, the financial expert of RMC has provided assistance to CPMO in developing Model Financial Statements for ICDs and the Project Financial Management Manual (both of which was submitted at the end of 1998). Furthermore, in view of the importance of developing a strong institutional capability for the financial management, CIDA has agreed to provide extensive training to staff of the project ICDs on the financial management system. CIDA will also provide ICD operators with computer software for accounting and financial management, and train the staff of ICDs to get them familiarized with the use of the software.

The results of the assessment was detailed in Annex 15.

D: Project Rationale

1. **Project alternatives considered and reasons for rejection:**

In selecting pilot corridors, SETC applied two selection criteria: (i) linkage with major container ports with deeply penetrating hinterland; and (ii) difficulty in mobilizing financial resources other than from the Bank. Four gateway corridors extending from Shanghai, Tianjin, Qingdao, and Guangzhou fulfill the first selection criteria. These gateway corridors were further examined in light of the second criterion. The Qingdao corridor was excluded because SETC has already financed its development. The Guangzhou area was also excluded because of the relative ease with which it attracts foreign investments.

There were four sub-corridors for the remaining two gateway corridors extending from Shanghai and Tianjin. Those subcorridors are: (a) Tianjin-Beijing-Hebei-Baotou, (b) Tianjin-Zhengzhou-Wuhan, (c) Shanghai-Jinan-Wuhan (Yangtze River subcorridor), and (d) Shanghai-Zhejiang-Nanchang. These subcorridors were further examined on the basis of two additional criteria formulated by the Bank team: (iii) whether the corridors could be developed by private-sector foreign investors; and (iv) whether the corridors in question serve land locked provinces with low income levels. With regard to the third criterion, the Wuhan-Zhengzhou-Tianjin sub-corridor has attracted strong interest from foreign investors (although still not yet realized) because of its location (Wuhan is often called the Chicago of China). The Yangtze River subcorridor is attractive to foreign investors because of numerous industrial activities along the River. For these reasons, subcorridors (b) and (c) were excluded from the list. The remaining two eligible subcorridors, (a) and (d), are found consistent with the fourth criterion. Both serve two land locked provinces, Inner Mongolia Province (15th poorest in terms of per capita income among 30 provinces) and Jiangxi Provinces (5th poorest among 30 provinces).

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned):

Sector issue	Project	Latest Supervision (Form 590) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed: Development of pilot rail container services Commercialization of rail container services Promotion of containerization Alleviation of port congestion Alleviation of port congestion	Railways VI Railways VII Three Ports Tianjin Port Ningbo & Shanghai Port	S U S S S	S U S S S
International Finance Corporation (IFC): Support of private sector financing of inland transshipment facilities	Wuhan Yangtze Inland Port	N.A.	N.A.

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in the project design:

- In the past the Bank has undertaken several initiatives in the areas of intermodalism and logistics management, though few of these have been fully implemented to date. A major problem in preparing an intermodal transportation project is finding appropriate implementing agencies that can effectively deal with multi-sectoral projects. Where capable implementing agencies are identified, they often number more than two. Multiple implementing agencies often result in serious coordination problems, and require an effective coordinating agency. Learning from this experience, the Bank decided to select SETC as the coordinating agency because it has a coordinating mandate over activities of line agencies and provincial governments.
- Experience in China operations shows that the reform elements are often delayed in implementation due to the time taken in developing a consensus within the beneficiary agency and/or among relevant government agencies. The OED report on railway projects (September 1993) recommended that "loan covenants should be used only if there is a realistic expectation that the borrowers will comply with them". In view of this experience, the team has encouraged the Chinese government to implement reforms in an early stage of the project preparation, thus enabling the Bank to rely less on the legal covenants.
- An OED report on the port sector (November 1996) urged some caution regarding port privatization. It stated that "there is no necessary relation between ownership and competition .. privatization of port assets may lead to monopolies that are difficult to control and likely to cause political dispute." This, in fact, has happened in the joint venture operations in Shanghai's container terminals. A sudden and sharp increase of port charges by the joint venture operator has triggered controversies on the need for private sector involvement in the transport sector, and since then, the Chinese Government has become more cautious about joint venture operations. Learning from this experience, this project emphasizes the introduction of intra-port competition. In extending financial assistance to Tianjin Port Authority as part of the physical component, the Bank has insisted on the introduction of intra-port competition for container terminal operations.

4. Indications of borrower commitment and ownership:

The commitment of all levels of the project entities is very high. This was clearly indicated by the strong support expressed by the highest level of officials of both central and provincial governments. CPMO has been successful in mobilizing funds necessary for the project preparation and in securing necessary support from relevant government agencies.

The sense of ownership is also high. The project was developed out of a sector study, a joint effort of the Bank and the Chinese Government. Its recommendations have incorporated the views of the Chinese Government. Upon the completion of the sector study, the Chinese Government established a vice ministerial level interagency group with the participation of relevant agencies, and started discussing the implementation of the recommendations. Several actions have already been taken as a decision of this interagency group (e.g. introduction of a separate tractor trailer registration system). This indicates their strong sense of ownership on the recommendations made by the study including the initiation of the proposed project.

5. Value added of Bank support in this project:

The Bank could uniquely contribute to establishing an efficient intermodal system in China by supporting:

- *Policy reform:* Developing an efficient intermodal transport system calls not only for physical investments but also for the removal of policy and institutional impediments. The Bank has extensive experience in advancing institutional and policy reforms. The Bank's intervention has been valued highly by the Chinese Government.
- *Transfer of technologies:* China's technologies and operational systems that support intermodal transport lag behind those of OECD countries. As China integrates its trade into the world market, the use of internationally compatible technologies and systems is increasingly important. The Bank would provide China with access to "best" management and operational practices used in advanced economies.

E: Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1. Economic (supported by Annex 4):

Economic evaluation methodology:

<input checked="" type="checkbox"/> Cost benefit	<input type="checkbox"/> Cost effectiveness	<input type="checkbox"/> Other [specify]
Cost benefit analysis	NPV U\$114.5 million	ERR 39.4%

The Tianjin port and ICD components of the project would have economic rates of return (ERRs) of 43.8% and 32.7% respectively, with a weighted average of 39.4%. The corresponding NPV values (using a discount rate of 12 percent) were U\$75.4 million, and U\$39.1 million.

For the ICD components, the NPV of the project was found to remain positive for all ICDs. The best estimate ERRs for the individual ICDs range from a minimum of 13% to a maximum of over 75%. The ICD with this exceptionally high value, makes use of existing land and assets that have no alternative economic use, and so has a lower cost per unit of production than the others. For the others, there is a positive correlation with the expected throughput of containers, the distance from the port and the balance of containerized cargo flows.

For Tianjin port, the economic feasibility was evaluated with respect of rates of growth of international trade container crane productivity and hours available for use, and macroeconomics factors including exchange rates and the costs of imported equipment. Only in some combinations of pessimistic assumptions did the ERR fall below the threshold value, and the probability weighted value was an acceptable 37.0%. However, the rate of return is very sensitive to the complementary reduction in berth idle time which will provide increasing berth throughput. An average reduction of 4% per annum is assumed. If this reduction is not realized, then the rate of return would be reduced to 14½%.

2. Financial (see Annex 5): NPV=US\$55.9 million, and FIRR = 23.2 %

For ICD components, the financial rate of return is 22.8%, and its NPV, US\$20.6 million. These rates are based on the existing provincial tariff structure and projected demand assuming that the ICDs and their trucking fleets have a declining share of the market over the life of the project. Six of the ICDs do not generate sufficient revenues from the container handling operations to produce a positive rate of return because of the low level of charges. However, when combined with the forwarding and trucking operations, they produce suitable returns on investment.

For Tianjin Port, the financial rate of return was 23.5%, and its NPV, US\$35.5 million. This rate is based on the current revenue and cost structure. The costs were projected from the previous two years according to whether the costs were fixed and variable. The overhead costs were assumed to decrease at 4% per year. The sensitivity analysis indicates that the rates of return decreased to 13% for the low traffic forecast and increased to 28% for the high forecast. An increase in capital costs by 25% reduces the rate by 5% whereas an increase in labor costs by 33% increases the rate by 7% since the project would reduce overall labor costs. The tariff is assumed to be increased every three years by the cumulative rate of inflation. If the increase is 2% less per annum, the rate of return decreases by 5%.

3. Technical:

ICDs have been designed in accordance with the technical standards on inland container depots issued in 1990 by the State Technology Supervision Bureau. A Bank expert in logistics conducted field visits to all ICDs in February 1998, and found that the project ICDs are located in environmentally and operationally desirable locations. The expert has also found that the scale of the facilities and the equipment to be purchased are appropriate. Chinese consulting firms have developed a detailed design.

Tianjin Port Authority is experienced in designing and preparing Bank-financed projects which have been satisfactorily implemented. Proposed technical design of the port component was reviewed by Bank experts during the field visit in March and April 1998 and found that it is based on proven, but state-of-the-art technologies. Proposed combination of various types of container handling equipment is considered appropriate given the current configuration of container berths. While TPA is aiming at substantially increasing the crane productivity (from 55,000 TEUs/crane to 83,000 TEUs/crane) with use of 9 gantry cranes, it is not too ambitious, considering the performance of other leading container terminals in Singapore, Hong Kong, Korea and Taiwan (more than 100,000 TEUs/crane). The estimated cost is appropriate in light of actual costs incurred in similar Bank-financed port projects in China.

4. Institutional:

Executing agencies: The project will be executed by Tianjin Port Authority (TPA) for the port component, and by ICD operators for the ICD component. TPA has demonstrated its project implementing capability in two previous Bank funded projects. In order to further enhance berth productivity, a technical assistance program was agreed to be included. With regard to the ICD component, operators are new enterprises. Most of their staff who will be recruited from its major equity holders, mostly from trucking companies, would be experienced with handling cargoes, but not with ISO containers. Thus, extensive

technical assistance would be provided to ICD operators to enhance their managerial and operational capability. The Bank would provide TA for: (i) development of business plans and operational manual training programs; (ii) development of MIS/EDI system; (iii) study tours, both foreign and domestic, for ICD operators. In addition, CIDA would provide training for: (iv) enhancement of financial management capability including the purchase of off-the-shelf software for accounting and financial management; (v) strengthening institutional capability of environmental management of ICDs and port container terminals; (vi) foreign study tours for officials of participating government agencies, both central and local.

Project management: As already stated in preceding paragraphs, the project would be coordinated and managed by CPMO under the overall guidance of SETC. CPMO has demonstrated its strong leadership over central and provincial government agencies in the course of the sector study and project preparation, and would continue to facilitate the implementation of the proposed project. In order to strengthen sector specific guidance capability, CPMO has recruited several full time and part time experts covering key areas such as procurement, economics, financial analyses, engineering, and environment. In addition, extensive assistance has been, and will continue to be provided by RMC staff in key areas such as procurement, disbursement and financial management. CPMO has already organized several "national workshops" inviting leaders and staff of all project entities. At provincial level, PPMOs have organized similar workshops with participation of leaders and staff of municipalities and project enterprises. A project launch workshop would be organized in April 1999 following Board approval of the project.

5. Social:

The Nankai University team reviewed land status at each resettlement site and presented to the Bank its "Investigation Report of Resettlement". The report indicates that land requirements of the project were met either through self-owned land or contributions by share holders as their in-kind equity investments in new ICD companies. The Nankai University team concluded that land acquisition was not required for this project. There are no encroachers or squatters settled on the specified land. Given the above, the Bank team has concluded that OD 4.30 does not apply to this project and a resettlement action plan (RAP) would not be required for this project.

6. Environmental assessment: Environmental Category [] A [X] B [] C

The project consists of one port and ICD subcomponents. All ICDs will, in addition to these services such as cargo distribution, transshipment and warehousing, provide cleaning, sterilizing, repair and maintenance service for the containers. This cleaning and sterilizing service is expected to generate wastewater, which will require treatment prior to discharge to the environment. Two investments, in particular, Tianjin and Baotou are expected to handle some hazardous and dangerous cargo, which will require careful handling and management.

A Sectoral Environmental Assessment (SEA) was launched in September 1997 to review the broader aspects of the environmental issues at each terminal and management and training needs and to develop site specific measures to minimize the impact of the development on the environment. The SEA shows that most ICDs are located in industrial areas on the periphery of cities, and have good transportation connections.

The SEA shows that at some locations, noise and wastewater pollution is a significant issue. Ambient air quality at most locations meets the regulatory requirements, however it may exceed the norms at certain times of the year. Some locations exhibit higher levels of SO_x and TSP depending on the local fuel use and the presence of other industries. At Qinhuangdao, Tangshan, and Xiaoshan, residential

areas are located some 30m to 70m away from the ICDs. These locations may require some form of noise abatement measures. At most ICDs, the wastewater will be pre-treated for oil removal prior to its discharge to the municipal sewers as required by municipal regulations. For Baotou and Tianjin Port which handle hazardous wastes/ dangerous materials, a dedicated waste treatment unit will be installed in Baotou, and the existing unit will be expanded in Tianjin Port.

In view of limited environmental impacts of the ICDs, the SEA also recommends limited construction and operational monitoring. An Environmental Management Unit will be set up at each ICD and relevant training will be provided to the environmental personnel. An Environmental Management Module will be included in the Technical Assistance component of the Container Project to develop standard operating procedures and environmental training module for use by operators at each site. For Tianjin and Baotou, which will handle hazardous and dangerous cargo, the proposed manual will also address the issue of emergency response and handling.

7. Participatory approach [key stakeholders, how involved, and what they have influenced; if participatory approach not used, describe why not applicable]:

Primary beneficiaries of the project are the exporters and importers in the project cities and their vicinities. During the sector study and project preparation, a series of shippers conferences were held in project cities to elicit their view on the development of container transport systems. Bank staff and/or consultants participated in the conferences held in Baotou and Shijiazhuang in 1996. Other affected group is shipping lines and freight forwarders, both foreign and Chinese. An interview survey was carried out in 1995 by a Bank recruited consulting firm to find out impediments facing shipping lines and freight forwarders based in US, Japan and Hong Kong and dealing with container cargoes destined to China. In addition, an international conference was held in Qingdao in 1996 to obtain their view on the improvement of inland distribution system in China. The results of these conferences were reflected in the sector study and the policy framework for this project.

Other key stakeholders: Other stakeholders are the people living in the vicinity of the project ICDs. A survey was conducted among 1,200 households, of which 1,115 responded to the survey. 90% of the people were supportive of the project, and none objected to it.

F: Sustainability and Risks

1. Sustainability:

Project sustainability would be secured by the implementation of a policy framework designed to remove major impediments to efficient intermodal transport system along two pilot corridors. Viability of ICDs are enhanced by developing their facilities in two stages, starting with a smaller scale and expanding later when demands guarantee the expansion. It was made conditional to obtain assurance from relevant agencies for permitting customs officers to be stationed in the ICDs and for according freight forwarding license to them. It was also agreed to provide training and technical assistance to enhance managerial, operational and marketing capability of these ICDs before their operations start.

2. Critical Risks (reflecting assumptions in the fourth column of Annex 1):

Risk	Risk Rating	Risk Minimization Measure
Project Outputs to Development Objectives: <ul style="list-style-type: none">• Development of export/import industries in project cities	S	<ul style="list-style-type: none">• Project cities were chosen from those which have potentials for the future growth and are supported by active trade promotion policies such as the establishment of "Technology and Trade Development Zone". However, uncertainty exists due to the recent financial crisis in Asia. Its impact on China, if it occurs, should subside by the time of the anticipated full-fledged operations of the project ICDs in 2005.
Project Components to Outputs: <ul style="list-style-type: none">• Adequate demand for container services to and from project cities• Improvement in operational practices for container handling at Tianjin Port	M	<ul style="list-style-type: none">• The above remarks would be applied to this risk as well. Additional mitigation measures include the location of project ICDs which have good connections to transport network and their proximity to industrial zone. Strong support of municipal government would also contribute to mitigating this risk.• Provision of the technical assistance for developing recommendations for the changes of their operational practices including the introduction of cut-off time for the acceptance of containers. Another TA aiming at establishing a more competitive environment in Tianjin Port would also help improve operational practice at Tianjin Port.
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

3. Possible Controversial Aspects:

Container haulage services by ICD operators: Because of the commercially oriented nature of trucking industry and in consideration of relatively easy access to local credit sources in financing trucks, a meeting was held in April 1998, prior to the departure of the pre-appraisal mission, to obtain the view of relevant Bank units, including the private sector development, financial sector and procurement units. The meeting concluded that there is adequate justification for Bank financing tractor trailers for the ICD operations at the levels assumed on this project [see paras. 3. (2) (c) for more detailed discussion].

G: Main Loan Conditions

1. Conditions for Project Effectiveness:

An implementation agreement should be signed between Tianjin Municipality and TPA.

2. Other (Classify according to covenant types used in the Legal Agreements)

Dated covenants agreed during the negotiations:

SETC:

- Preparation of an operational manual for ICD enterprises by December 31, 1999
- Assistance to ICD enterprises for: (i) the preparation of a strategy for future capital mobilization by March 31, 2002; and (ii) the preparation of plans for private sector participation for those ICDs with good financial performance

- Provision of: (i) a consolidated semi-annual report on the progress of the project implementation by June 15 and December 15, commencing on December 15, 1999; and (ii) a consolidated mid-term report on the progress of the project implementation by June 15, 2001

ICD operators:

- Provision of audit reports on project accounts and financial statements by June 30 every year commencing in 2000
- Maintenance of required debt service ratio, starting in fiscal year 2002
- Maintenance of required operating ratio, starting in fiscal year 2002
- Preparation of business plans by December 31 of each year commencing in 2000 through 2003
- Preparation of a strategy for future capital mobilization by March 1, 2002, and, for selected ICDs, implementation of plans for private sector participation

Tianjin Port Authority:

- Provision of audit reports on project accounts and financial statements by June 30 every year
- Maintenance of a required operating ratio
- Causing THCC to maintain required debt-equity ratio, starting in fiscal year 2002
- Causing THCC to maintain required operating ratio, starting in fiscal year 2002
- Development of an action plan for the establishment of an institutional and operational framework to enhance competition between the existing container terminal operators
- Develop a strategy to enhance berth utilization and productivity by May 31, 2000
- Preparation of: (i) a semi-annual report on the progress of the project implementation by April 30 and October 31 of each year commencing on October 31, 1999; and (ii) a mid-term report on the progress of the project implementation by April 31, 2001.

H. Readiness for Implementation

The engineering design documents for the first year's activities are complete and ready for the start of project implementation. *Not applicable.*

Engineering design was completed in accordance with Chinese State requirements.

The procurement documents for the first year's activities are complete and ready for the start of project implementation.

Draft bidding documents for the first year's activities were submitted to the Bank in January, 1999.

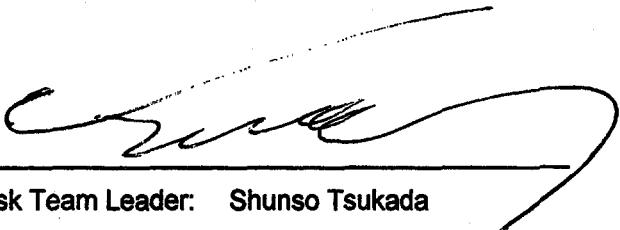
The Project Implementation Plan (PIP) has been reviewed and found to be of satisfactory quality.

Revised PIP was submitted to the Bank at the end of May 1998, incorporating comments the task team made during the pre-appraisal.

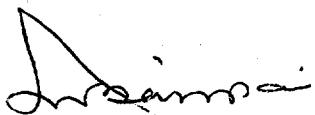
The following items are lacking and are discussed under loan conditions (Section G):

I. Compliance with Bank Policies

- This project complies with all applicable Bank policies.
 [The following exceptions to Bank policies are recommended for approval: The project complies with all other applicable Bank policies.]



Task Team Leader: Shunso Tsukada



Sector Manager: Jitendra N. Bajpai

Annex 1

Project Design Summary

Narrative Summary	Key Performance Indicators ^{1/}	Monitoring and Supervision	Critical Assumptions and Risks
CAS Objective <ul style="list-style-type: none"> • Alleviate infrastructure bottleneck. • Assist local governments to develop income-generating programs in lagging provinces. 			(CAS Objective to Bank Mission)
Project Development Objectives <ul style="list-style-type: none"> • Facilitate inland penetration of seaborne containers from gateway ports to inland cities, thus contributing to reducing economic disparities between coastal and inland areas. 	<ul style="list-style-type: none"> • Value of imports and exports to and from project cities 	<ul style="list-style-type: none"> • CPMOs' progress report 	<p>(Development Objectives to CAS Objective)</p> <ul style="list-style-type: none"> • Need to develop similar intermodal links in other regions
Project Outputs <ul style="list-style-type: none"> • Increase container movement along two corridors three fold. • Enhance berth productivity of THCC 50 % by year 2003 	<ul style="list-style-type: none"> • Number of containers handled at project ICDs • Number of containers handled at THCC 	<ul style="list-style-type: none"> • CPMO's progress report • CPMO's progress report 	<p>(Outputs to Development Objectives)</p> <ul style="list-style-type: none"> • Development of export/import industries in project cities
Project Components/Sub-components: (see Annex 2) <ul style="list-style-type: none"> • Develop common-user ICDs at inland cities in pilot corridors • Upgrade container handling capability at THCC's container terminal 	Inputs: (budget for each component) <ul style="list-style-type: none"> • US\$85 million equivalent • US\$73 million equivalent 	<ul style="list-style-type: none"> • Progress reports • Supervision mission 	<p>(Components to Outputs)</p> <ul style="list-style-type: none"> • Adequate demand for container services to and from project ICDs • Improvement in operational practices for container handling

N.B. See Annex 19 for the current and future values of performance monitoring indicators.

^{1/} Baseline and targeted values should be shown, with the latter divided into values expected at mid-term, end of project and full impact.

Annex 2 Project Description

A. Project Component - ICD Development: US\$82 million equivalent (total cost of component, excluding contingencies)

Introduction: This component is aimed at developing container handling capability at selected inland cities located along two pilot corridors. The Bank would finance qualified inland container depots (ICDs) for their construction and the procurement of equipment. Those ICDs should meet requirements for service, location and enterprise reforms.

Project ICDs should provide a standard menus of services including: (i) customs clearance and other three cross border inspection services; (ii) provision of container location information; (iii) freight forwarding services including documentation; (iv) staffing and destaffing of containers; (v) container haulage services to and from ports; (vi) equipment interchange and receipt (EIR) system for establishing clearer container hand-over procedures; (vii) empty container storage as designated container returning points; and (viii) container repair services. These ICDs are linked with port based EDI centers at Tianjin and/or Shanghai so as to provide the above functions, (ii) and (iii).

Project ICDs have to locate along the pilot corridors. They should be connected to the main transport network, and be located in the peripheries of cities.

Project ICDs should be managed and operated by new companies which were established by October 1998. All of them are required to be limited liability companies or stock companies in accordance with new Company Law. A critical element of these ICDs is the common user function where ICD operators should handle containers of all shipping lines and allow all qualified trucking companies to load or unload containers at facilities.

Brief description of each facility applying for the Bank loan is presented in Annex 18.

Investment: This component is to develop 9 ICDs located in 9 cities: Baotou (in Inner Mongolia Autonomous Region), Handan, Baoding, Tangshan, Qinguangdao and Cangzhou (in Hebei Province); and Huzhou, Hangzhou and Xiaoshang (in Zhejiang Province). Main items of investment are the same for all ICDs. Those are summarized below.

1. *Civil works:* The construction of ICDs including sheltered platform, storage facilities, administration building, container stacking yard, parking lot, gas stations, vehicle weighing station, container maintenance yards, fences and gates and other ancillary facilities. The cost of civil works would be US\$18 million.,.

2. *Equipment:* The purchase of top-loaders, forklifts, tractor trailers, hutch trucks, MIS/EDI system, communication and office equipment, electronic vehicle weighing machines, and other ancillary equipment necessary for ICD operations with the total cost of US\$20 million.

3. *Technical assistance:* Four technical assistance programs would be financed by the Bank: (i) TA for the development of business plans which costs US\$64,600; (ii) TA for the development of an operational manual which costs US\$61,000; and (iii) the conduct of foreign and domestic trainings and study tours, costing US\$234,000, and (iv) TA for developing an Electronic Data Interchange (EDI) and Management Information System (MIS) for project ICDs, with an estimated cost of US\$199,000. In parallel, Canadian International Development Agency (CIDA) would finance supplemental TA programs including: (i) conduct of foreign study tours for officials of relevant government agencies including customs

office; (ii) enhancement of financial management capability of ICD operators; and (iii) environmental management capability for ICD operators and THCC.

B. Project Component 2—Upgrading Tianjin Port Container Handling Capacity: US\$72 million equivalent (total cost of component, excluding contingencies)

Introduction: Tianjin Port is a major gateway port in the north eastern part of China. It has a vast hinterland, covering Beijing, Shijiazhuang, Zhengzhou, Taiyuan and Boatao. Faced with the recent acceleration of containerization, Tianjin Port has been operated at capacity for the last couple of years. If the proper actions are not taken now to increase capacity and enhance productivity, it would soon become a major bottleneck for the inland distribution of seaborne containers. In view of this situation, Tianjin Port Authority (TPA) has recently developed a two-staged development plan for capacity expansion. *The first stage* is to use the existing port infrastructure to its fullest extent by: (i) upgrading the current container handling facilities operated by its SOE affiliate, Tianjin Harbor Container Company (THCC), with introduction of three additional quay-side gantry cranes and other ancillary equipment; and (ii) converting the existing timber and ore berths into container berths under a joint venture arrangement. *The second stage* development plan is to construct new container berths at the north port areas during the 10th five year plan period. This project is designed to assist *the first stage* development of TPA by: (a) extending financial assistance to the upgrading of container handling equipment at THCC; and (b) providing technical assistance to establish a better operational and institutional environment for container operations.

A major element which ensures the sustainability of this component is TPA's decision to introduce an intra-port competition through private sector participation in container terminal operation at Tianjin Port (see Annex 13 for details).

Investment: Major investments included:

1. *Civil Works:* Reinforcement of the existing container berths and crane rail structure, reinforcement and expansion of container yards, renovation of power stations, and ancillary works, amounting to US\$ 4 million which would be locally financed.

2. *Equipment:* The purchase of three quay-side container gantry cranes (post-panamax size), 13 rubber tired gantry cranes (RTGs), 5 forklift trucks, installation of additional parts and system to upgrade the existing two quayside container cranes and other ancillary equipment. The total cost would be US\$34 million.

3. *Technical assistance:* The Bank will finance three technical assistance programs: (i) TA for establishing an institutional and operational environment for the intra-port competition between two container terminal operators, with an estimated cost of US\$60,000; and (ii) TA for enhancing the productivity of container berths at Tianjin Port with an estimated cost of US\$52,000; and (iii) foreign visit and training will be an estimated cost of US\$65,000.

Annex 3
Estimated Project Costs

Project Component	Local	Foreign (US\$ Thousand)	Total
I. ICD Component			
A. Equipment			
1. Container handling equipment	0	6,421	6,421
2. Transport equipment	0	13,798	13,798
3. EDI/MIS	0	755	755
4. Other equipment & facilities	653	979	1,632
B. Works	8,963	8,611	17,574
C. Technical Assistance	0	559	559
D. Other Investments			
1. Investment in kind by equity holders	22,282	0	22,282
2. Other cost by non-project entities	10,194	10,194	20,387
II. Port Component			
A. Equipment			
Container handling equipment	0	36,404	36,404
B. Works	3,979	3,823	7,802
C. Technical Assistance	0	177	177
D. Other Investment	11,060	16,590	27,649
Total Baseline Cost	57,130	98,311	155,440
Physical Contingencies	1,115	1,071	2,186
Price Contingencies	0	880	880
Taxes and Duties	284	0	284
Total Project Cost	58,530	100,262	158,790

Interest during construction (IDC) is equal to US\$3,012,000

Physical Contingency for civil works: 10%; equipment and TA: 0%

Price Contingency: 1997 prices are used and adjusted for prices for 1999, 2000, 2001 as follow:

	<u>1999</u>	<u>2000</u>	<u>2001</u>
Domestic	0.00%	3.00%	5.00%
Foreign	1.33%	2.55%	2.70%

Annex 4

Cost Benefit Analysis Summary

a) Whole project:

	Present value flows	
	Economic analysis	Financial analysis
NPV	\$114.5 million	\$55.9 million
IRR	39.4 %	23.2 %

b) Tianjin Port:

	Present value flows	
	Economic analysis	Financial analysis
NPV	\$75.4 million	\$35.8 million
IRR	43.8 %	23.5 %

c) Inland Container Depots:

	Present value flows	
	Economic analysis	Financial analysis
NPV	\$39.1 million	\$20.6 million
IRR	32.7%	22.8%

SUMMARY OF BENEFITS AND COSTS

A. TIANJIN PORT

As it is currently operated, Tianjin port has passed its optimum volume of traffic, so that port users are now experiencing a deterioration in quality of service. The economic benefit of the project would be to increase the existing infrastructure capacity, and thereby improving the quality of service and deferring the need to invest in major new facilities. This is the benefit that has been quantified in the economic evaluation. In addition, the project would create, for the first time in a Chinese port, genuine within-port competition between operators of different berths, and with it, further advantages of choice to port users.

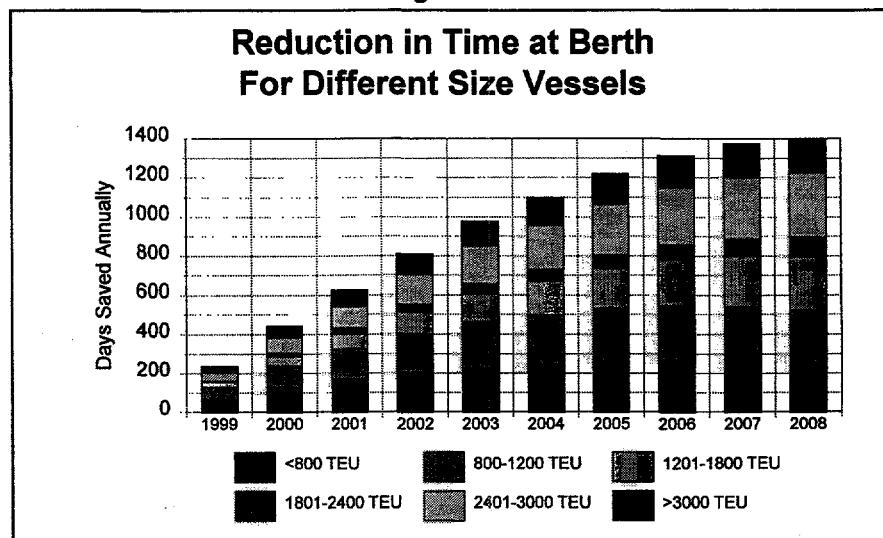
SOURCE OF BENEFITS

The benefits from the proposed investment in cranes and yard equipment for Tianjin Container Terminal and other minor improvements to the infrastructure would be derived from the improvement in berth throughput. This improvement would come through the use of more and faster cranes to service vessels, less crane downtime for maintenance and repair, and a reduction in vessel idle time through complementary requirements in port operating procedures. The faster vessel turnaround time would bring savings in ship operating cost, while the higher productivity in use of port assets would reduce unit operating costs, and the additional capacity would delay the need for investment in new terminal capacity by about four years.

Reduced delays to vessels

The savings in vessel time from the reduction in idle time, increase in crane throughput and assignment of more cranes per vessel are estimated for each of the five size groups of vessels (<800 TEU, 801-1200, 1201-1800, 1801-2400, 2401-3000, >3000 TEU). The savings would be greatest for the 800-1200 TEU vessels, which account for the largest number of vessel calls at Tianjin, followed by 2400-3000 TEU vessels (Figure 1). It is this second group that would benefit most through being serviced by three rather than two cranes. The estimated present value of benefits from reduced delays for all vessels is US\$63 million.

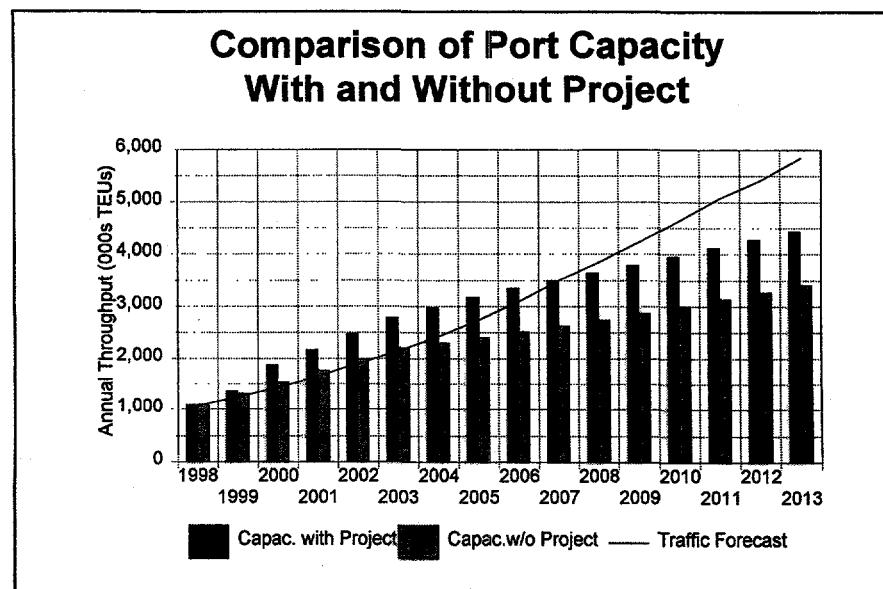
Figure 1



Deferred investment and reduced operating cost

The marginal increase in capacity to provide for projected demand would be a two-berth terminal with six cranes and a capacity of 800 thousand TEU, estimated to cost US\$100 million with an annual operating cost of about US\$10 million in 1998 prices. There would also be a marginal increase in port operating costs through having two more berths to handle the same demand as in the with-project case. The four-year delay in implementing this investment (Figure 2) would provide a present value benefit of US\$56.5 million, made up of US\$38.5 million for delayed capital investment and \$18 million for delayed operating costs.

Figure 2



Sensitivity tests

Sensitivity tests were performed to evaluate the effects of alternative growth in port traffic and a slower improvement in productivity (the reduction in idle time, lower crane productivity and increase in average utilization of cranes).

a) **Demand growth rates:** The results for four growth scenarios are shown in the following table. Even with the lowest growth scenario the EIRR meets the minimum acceptable EIRR value. The last of the four demand scenarios is aimed at testing the short term possible impact of the Asian financial crisis. It includes a much lower growth over the first four years but a growth rate approaching the historic long term rate thereafter.

ECONOMIC RATE OF RETURN FOR DIFFERENT GROWTH SCENARIOS

	Rates of Growth for Different Periods			EIRR	Modified EIRR
	1998-2002	2003-2007	2008-2017		
Low	8.5%	7.0%	5.0%	27.1%	17.0%
Expected	11.5%	10.0%	8.0%	43.9%	19.2%
High	14.5%	13.0%	11.0%	52.1%	16.8%
Asia crisis	1.0%	8.0%	8.0%	14.4%	13.6%

b) **Port efficiency:** Changes in operating practices in the port, are expected to reduce vessel turn-around time. These are largely independent of investment in new facilities, but the provision of new capacity will provide a good opportunity to implement new operating practices. At present, ships can be delayed because of the lack of control of closing-time for the loading of containers to be exported. Stricter control would reduce average vessel time in the port, reduce ship and port operating costs and increase capacity. The excess idle time at berths is expected to decrease by 4% a year from the current level of 50%, which is well above international standards, eventually reaching an equilibrium level of 20%. The assumed rate of reduction in idle time significantly increases the economic rate of return. The project would remain economically feasible even without a reduction in idle time.

ECONOMIC RATE OF RETURN FOR DIFFERENT RATES OF REDUCTION IN SHIP IDLE TIME

Annual Rate of reduction	EIRR	Modified EIRR
-4%	43.9%	19.2%
-3%	36.9%	18.6%
-2%	34.0%	18.0%
-1%	23.3%	16.3%
0%	18.4%	14.7%

c) **Crane productivity:** Crane productivity is expected to increase at 2% per year reaching a maximum of 30 boxes per *net* crane hour. Slower improvements in crane productivity would reduce the impact on the rate of return. However, as with reductions in ship idle time, the project would remain economically viable even with slower improvement in crane utilization. The average utilization of the cranes (in terms of operating hours) has little impact on the rate of return because the increase in utilization is limited by the large proportion of vessels which use 2 or less cranes.

ECONOMIC RATE OF RETURN FOR DIFFERENT RATES OF INCREASE IN CRANE PRODUCTIVITY

Annual Rate of increase in productivity	EIRR	Modified EIRR
2.5%	43.9%	19.2%
2.0%	43.4%	19.0%
1.5%	35.8%	18.1%
1.0%	35.2%	17.9%
0.5%	34.5%	17.7%
0.0%	31.8%	17.1%

Macro-economic variables

Differences in capital costs or exchange rates would affect both the costs for the project and the savings from delayed investment in terminals. If the impacts were to be limited to a 25% increase in the costs of equipment, the economic rate of return would reduce to 41.5% (MERR of 18.5%). The effect of a devaluation of the RMB would be to increase the economic return of the project by lowering terminal operating costs relative to capital costs. Both the costs of the investment and the benefits from delayed investment and vessel savings have large foreign exchange components, so the net benefits would increase with devaluation.

B. INLAND CONTAINER DEPOTS

Source of benefits

The direct economic impact of the ICDs will be to reduce the cost of moving containers to the ten cities in the inland provinces where they are located. These cost reductions will come about by making the transport of bonded containers possible whereas now it is not, by introducing competition to existing state monopoly ICDs and by providing competition in the transport of bonded containers from the port to the inland cities. It is these benefits that have been evaluated as the economic benefit of the project. Indirect and longer term benefits are expected to come through the location of more export-oriented industries in these cities rather than closer to the ports where most such industry is presently located. This benefit is the ultimate objective of the project but has not been quantified. In fact, the extent to which this benefit is achieved depends on influences beyond the scope of the project. However, the introduction of the ICDs in these cities is seen as an essential and necessary condition to be satisfied before export-oriented industries can be encouraged to locate away from the ports that serve them.

ICD PROJECTED DEMAND (LOADED TEU IN YEAR 2005)

ICD	Distance to Port (km)	Hinterland	
		Inbound	Outbound
Baoding	204	9,541	17,718
Baotou	900	11,375	14,625
Cangzhou	158	11,565	21,479
Handan	510	11,723	21,771
Huzhou	190	19,305	38,545
Quihuangdao	206	21,364	39,675
Tangshan	130	25,470	47,301
Xiaoshan	250	72,500	103,600
Xintang	250	81,000	216,200
Total		263,843	520,914

EVALUATION METHOD

The information and assumptions made in the economic evaluation of the ICDs are mostly the same as those used in their financial evaluation. But instead of ending with a cash flow analysis and an estimated rate of return on equity, the operations of each ICD are compared with what is expected to happen if they are not implemented. The principal difference is that without the ICDs, most export production from the inland cities will be transported as break-bulk (i.e. non-containerized) freight, in smaller trucks at a higher cost and with greater probability of loss and damage. In addition, the economic evaluation takes no account of financing charges or taxes to be paid, and applies correction factors to the financial costs of inputs to reflect their shadow prices.

SENSITIVITY TESTS

There are many uncertainties associated with a project that will fundamentally change the way that freight is transported. The introduction of containers into freight transport has often been called a revolution in transport, and as with all revolutions, it involves a high degree of risk. By taking account of the measures to mitigate this risk that have succeeded in other ports, the risks can be reduced to manageable proportions. In this case, the project includes many policy measures that will eliminate or reduce most risks, but some commercial risks remain. These include the possibility that: (a) the economy and export trade of the region where the ICD will be located will not grow at the expected rate; (b) shipping lines will delay in nominating an ICD as returning point for empty containers. Delay in achieving this status reduces the rate at which demand for the ICD will build up to the projected level (that is, the "ramp-up" period will be extended). Other commercial factors might result in the same outcome; (c) the costs of operating the ICDs will be higher than expected; (d) potential users of the ICDs will not respond as positively as expected, or will adapt more slowly, to the new opportunity open to them, and; (e) other ICDs (in those cities where there is already a state-operated ICD) will compete more vigorously than anticipated to retain their share of the market, or the ports will respond in a similar way to retain their container stuffing and unstuffing activities. If any of these risks materialize, the economic benefits (as well as the financial returns) will be reduced. All these risks were evaluated through sensitivity tests.

Other sensitivity tests were made to examine the impact of two different assumptions as to what would happen if the project is not implemented. These were that to some extent bonded containers would still be used, but without making use of the ICD. In the basic evaluation it was assumed that if the ICDs are not implemented, 50% of the containerizable freight that does not go directly to, or come from, the manufacturing plant in the inland city, would still be containerized. The alternative assumptions were that zero and 100% per cent of this freight would travel in bonded containers.

EVALUATION RESULTS

The evaluation results indicate that under the basic assumptions, all of the ICDs are likely to achieve acceptable economic rates of return, although the specific ERRs vary significantly between ICDs. The highest ERR value is for the depot at Xiaoshan, with a value 75.7% (MERR of 28.5%), almost ½ as large again as that of the depot with the next highest value, Handan (53.2%). This is followed by three depots with ERRs close to 40% (Baotou, Tangshan and Quihuangdao) and two more with values close to 20% (Baoding and Cangzhou). The remaining two depots have values of about 14% (Huzhou and Xintang).

a) Economic Evaluation

ECONOMIC EVALUATION OF ICDs

	ERR%	MERR%	NPV U\$M
Baoding	18.5%	15.3%	0.994
Baotou	40.9%	19.8%	11.643
Cangzhou	22.2%	17.2%	1.322
Handan	53.2%	23.1%	5.695
Huzhou	13.6%	13.1%	0.265
Quihuangdao	38.7%	19.8%	3.731
Tangshan	40.7%	22.6%	3.401
Xiaoshan	75.7%	28.5%	11.284
Xintang	15.0%	14.2%	0.800
Total	32.2%	18.5%	39.135

The very high ERR value for Xiaoshan is largely because of the high volume of traffic and the balance between inbound and outbound loaded boxes which reduces the amount of empty backhauls as well as the high ratio of container throughput to assets. The other depots with ERRs above 30% all have a reasonable balance in the flow of traffic. Three are located further away from the port and the other two have high ratios of container throughput to assets, indicating that they expect to achieve higher asset productivity than the others. The ICDs with lower ERR values are those with unbalanced flows, lower throughput of containers, and low expected utilization of assets. The high correlation between volume and balance of inbound and outbound are a result of the lower logistics costs when an ICD is introduced as a marshalling area for empty boxes.

b) Sensitivity tests

The sensitivity tests were made with alternative assumptions of demand and operational efficiency. Two parameters of demand were investigated, economic growth in the region of each ICD and the rate at which demand might be built up over time. Two sets of operating scenarios were assessed, one with different levels of savings of damage to freight in transit, and the other with higher labor of capital

operating costs. None of the sensitivity tests showed an overall unacceptable economic rate of return, although some of the ICDs had unacceptably low values for some of the tests. Two of the ICDs in particular, Huzhou and Xintang, would be particularly vulnerable to a slow build-up of traffic or overall lower levels of demand. During Appraisal, the initial investments planned for these ICDs will be reviewed to see if it can be reduced so as to increase the economic justification of the investment.

SUMMARY OF SENSITIVITY TEST RESULTS

Evaluation test	Probability	EIRR %	MIRR %	NPV US\$MM
Demand				
Low	35%	27.6	16.4	28.08
Best estimate	40%	24.0	18.5	46.93
High	25%	35.4	19.7	61.85
Expected value		31.5	18.1	43.32
Ramp-up Period				
Slower	35%	21.1	15.8	23.37
Basic	45%	32.7	18.5	46.93
Faster	20%	36.4	18.8	50.61
Expected value		29.4	17.6	39.58
Cargo Damage				
Low damage savings	30%	18.3	14.5	15.33
Basic	50%	32.7	18.0	46.93
High damage savings	20%	42.1	20.1	68.00
Expected value		30.2	17.3	41.67
Operating Costs				
Higher labor cost	40%	31.5	18.2	44.71
Basic	50%	32.7	18.0	46.93
Higher capital cost	10%	32.4	18.5	47.05
Expected value		32.2	18.1	46.06

Summary of results for each ICD (ERR%)

Depot	Low Demand Expected EIRR %	Slow ramp-up Expected EIRR %	Low cargo damage Expected EIRR %
Baoding	12.2%	10.9%	11.2%
Baotou	34.8%	25.1%	38.7%
Cangzhou	15.5%	13.2%	15.0%
Handan	47.6%	31.5%	37.8%
Huzhou	8.6%	8.4%	11.7%
Quihuangdao	34.1%	22.9%	31.1%
Tangshan	35.6%	26.1%	30.2%
Xiaoshan	78.4%	51.1%	55.8%
Xintang	8.7%	9.7%	13.9%
Average	27.4%	19.7%	23.5%

Annex 5

Financial Analysis

The financial analyses are made from the perspectives of the companies that will operate the facilities to be supported by finance from the Bank loan. In the case of Tianjin port this is the Tianjin Harbor Container Company (THCC), which is presently a fully-owned subsidiary of Tianjin Port Authority (TPA). THCC has been neither financially nor managerially independent from TPA, but it was agreed that during the course of the project it would become established under Chinese Company Law as stock company.

In the case of the inland container depots, these are the owner-operators of the ICDs and their associated trucking fleets. The ICDs will all be operated as limited liability companies, but as yet these are all still in the process of formation (with all of them to be legally established before negotiations). As they have no commercial history and their financial structure is not yet finally determined, their financial analyses are still conditional. It has been assumed that their debt : equity ratio will not exceed 60:40, and that domestic loans will be used to make up their capital base to that necessary to start operations. Given that the Bank loan will be on-lent to them on terms similar to those of the Bank loan to the Ministry of Finance, they will have a five-year grace period before having to make any capital repayments. This will avoid their having negative cash flows during the years in which their traffic is building up.

A. Tianjin Port

The financial analysis of the Tianjin port component of the project was made from the point of view of the beneficiary, the THCC. The four parts of the analysis were: (a) projections of demand (the number containers that would be handled and the ship calls needed to service them), (b) the revenues that would be generated, (c) port operations, capacity and the costs that would be incurred, and (d) the resulting financial results.

a) Demand Projections

The methodology used for projecting traffic was based on the application of general macro-economic factors to historic growth rates of the movement of containers and vessels through the port. Table 1 shows the series of historic data (1991 through 1996) used as the basis of projection of container movements. The annual growth in containerizable cargo averaged about 11% over this period.

Container traffic grew more rapidly because of the continuing conversion of existing general cargo from breakbulk form to containers. The percentage of containerizable cargo actually carried in containers rose steadily from 35% to 55%. Over the next 10 years it was assumed that this percentage would continue to increase, reaching a maximum of 90%.

The growth in container traffic will be moderated by two factors, a reduction in the percentage of empties and an increase in the use of larger boxes. The percentage of empty containers has held at about 25% over the last seven years. This reflects a fully-loaded trade in the outbound direction and a lightly loaded trade inbound. This is expected to change with further liberalization of trade. It was assumed that the percentage of empties would drop to 20% over the next 10 years, reflecting a more balanced trade, and eventually reach 15%. The average size of the boxes handled has remained relatively steady with about 30% of the boxes of length 40 feet or more, but this percentage is expected to increase to about 45% over the next 15 years. Another factor which would moderate the growth in the number of containers is the amount of cargo carried in loaded TEUs. Currently this is only 10.5 tons, but will increase as the proportion of 40 foot increases.

Table 1: Characteristics of Container Traffic 1991-1997

Year	1991	1992	1993	1994	1995	1996	1997
Port Dry Cargo (000 tons)	23,776	29,286	37,192	46,521	57,866	61,883	67,893
Port Containerizable Cargo (000 ton)	7,622	7,766	9,246	11,610	12,408	12,693	13,163
% rate of growth		1.9%	19.1%	25.6%	6.9%	2.3%	3.7%
% containerization	34.5%	39.8%	39.1%	40.5%	45.0%	49.7%	55.5%
Containerized Cargo (000 ton)	2,632	3,093	3,612	4,698	5,588	6,314	7,299
TEU (000 TEUs)	340	394	482	631	702	823	935
TEUs handled by THCC	340	394	454	460	495	528	583
Market share of THCC	100%	100%	94%	73%	70.5%	64%	62%
% of 40' containers	30.1%	30.8%	29.8%	31.5%	30.1%	32.7%	30.8%
Boxes (000)	261	301	350	350	381	398	446
% Empty	25.0%	23.5%	24.2%	26.8%	23.4%	25.1%	24.8%
Empty TEUs (000)	85	93	110	123	116	132	145
% LCL						3.0%	3.0%
Tons per TEU	7.7	7.9	7.5	7.4	8.0	7.7	7.8
Tons/Loaded TEU	10.3	10.3	9.9	10.2	10.4	10.2	10.4
LCL TEU						16	17

Source : THCC

The percentage of the boxes passing through Tianjin port that were handled by the Tianjin Harbor Container Company has been decreasing primarily because of the introduction of two new berths currently operated by a separate organization which is seeking a Joint Venture arrangement with Sealand Shipping Lines. This group is expected to develop an additional two berths as the traffic increases, which would further reduce the THCC market share. The assumed reduction of market share is based not only on competitive factors but also on the capacity limits of the THCC facilities. Without the project, the market share would be expected to decline more rapidly since the THCC capacity would be even less.

A summary of the factors used to prepare the traffic projection is shown in Table 2. The resulting projection of total container volume is shown in Figure 1 for the expected, low and high rates of traffic growth. While there is wide divergence in the forecast, the variation in the amount handled in the two terminals is less because their capacity is expected to be exceeded by somewhere between 2002-2005 (under the pessimistic forecast the capacity is never succeeded). The capacity, as shown in Figure 1, is for both terminals. It assumes that the other container terminal will be expanded to four berths by 2002 and have a capacity of 1 million TEU rising to 1.5 million by 2007 and 2 million by 2012.

Figure 1

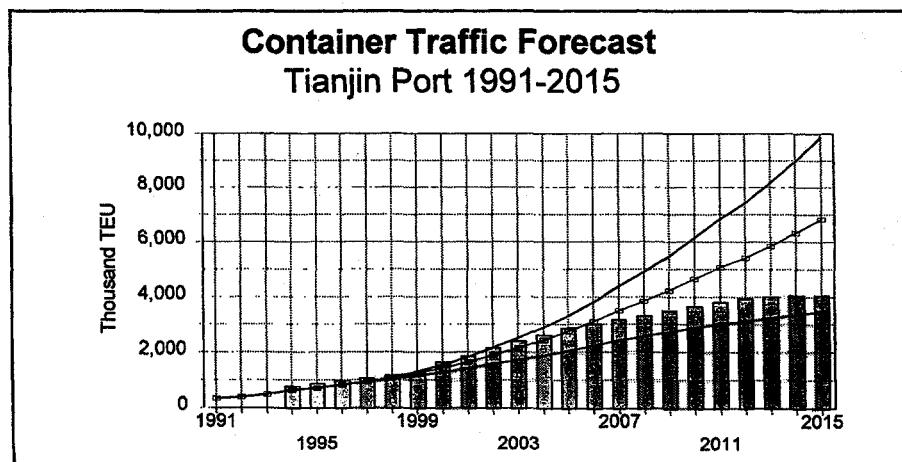


Table 2: Factors for Traffic Projection

Containerizable Cargo Growth	Low	Expected	High
1998-2002	7.5%	11.5%	14.5%
	6.0%	10.0%	12.0%
	4.0%	8.0%	10.0%
Average Tons per loaded TEU	10.5		
Proportion of Empties			
2002	22.5%		
2007	20.0%		
2012	15.0%		
Traffic Factors	Annual	Max/Min	
Containerization rate	2.5%	90%	
Change in Market Share	-2%		
% 40'	1.0%	45%	
% LCL	-0.5%	10%	
Productivity Gains			
Net Box rate for S-S Cranes	2.5%	30	
Idle time at berth	-4.0%	20%	
Maximum Crane Hours	+200	4,500	

Vessel Forecast

The vessels carrying the containers range in size from small feeder vessels of less than 800 TEU to fourth generation vessels of 3800 TEU operated by COSCO. The distribution of vessel calls by size is shown in Table 3.

The smaller vessels account for almost 44% of the total calls and about 33% of the TEU handled in the port. When all vessels of 1200 TEU or less are included these percentages increase to 62% and 60%, respectively. The largest vessels, those operated by COSCO, account for only 7½% of the calls but 14% of the containers. While it is anticipated that the average size of the vessels calling at the port will increase, it is not expected that there will be a rapid increase in calls by the largest group of vessels. The latter transfer a relatively small proportion of their capacity per vessel call which suggests that these calls are of limited financial benefit to the company. The increase in vessel size will require that more cranes be assigned per vessel, but will also increase the throughput of the berths since the berth productivity will increase.

Table 3: Distribution of Vessel Calls in 1996 by Ship Size

Size (TEU Range)	Vessel Calls		Average TEU transferred	Boxes Handled	
	Number	%		% Terminal Total	% Vessel Capacity
801	<800	38.0	43.3%	431	33%
	1200	24.0	27.3%	534	26%
1201	1800	7.3	8.3%	441	6%
	2400	2.0	2.3%	892	4%
1801	3000	9.0	10.3%	959	17%
	>3000	7.5	8.5%	894	14%

Source: THCC, Consultants Calculations

It is expected that the average vessel size, currently 1,300 TEU, will increase to 1,670 TEU by 2010 and to 1,770 thereafter. The estimated change in the distribution of vessel sizes is shown in Table 4. The majority of the vessel calls will continue to be feeder services but there will also be an increase in interregional services. The proportion of the larger vessels calling at Tianjin will increase but not significantly. Calls by even larger vessels will be restricted by the available water depth, by the distance of the port from the major shipping routes and the growing competition from Dalian and Quandao.

Table 4: Distribution of Vessel Size in the Future

	<800	801-1200	1201-1800	1801-2400	2401-3000	>3000
Year 2000						
% of vessel	42	28	9	2.5	10	8.5
% TEU transferred	55	55	30	40	33	25
Year 2005						
% of vessel	36	25	12	5	13	9
% TEU transferred	60	60	35	45	36	33
Year 2010						
% of vessel	30	22	16	7.5	14.5	10
% TEU transferred	63	63	37	47	38	32
Year 2015						
% of vessel	24	20	20	9	1	11
% TEU transferred	65	65	40	50	39	30

Competition among shipping lines will continue to limit the average number of TEU handled per vessel call by medium and larger vessels. The ratio of TEU transferred to vessel capacity is expected to remain at about 30%. For smaller feeder vessels, this ratio is expected to increase from the current 50% to 60% as feeder services are rationalized. The resulting projected vessel calls by ship size would be:

Table 5: Vessel Forecast (calls per year)

	Ship size					
	<800	801-1200	1201-1800	1801-2400	2401-3000	>3000
2000	590	395	125	35	140	120
2005	680	470	225	90	245	170
2010	700	515	375	160	340	230
2015	560	465	465	210	370	255

b) Revenues

The revenues for the terminal were computed by using the average unit revenues for the services provided by the terminal. The official tariff could not be used because it has a more complex structure than the traffic forecast and because the THCC offers discounts to selected large volume customers. The unit revenues for 1996 and 1997 are shown in Table 6. The principal income is from the terminal handling charge which accounted for about RMB 252 per TEU in 1997. It was assumed that the tariffs would only be changed every three years and at that time the increases would compensate for the increase in inflation during that period. In constant value the prices were assumed to decrease in value by the inflation rate for two of the three years and then return to their previous value in the third year.

Table 6: Current Average Unit Revenues

Activity	RMB/TEU	
	1996	1997
Loading/Unloading	243.7	252.1
Storage	14.8	9.1
Stuffing, Unstuffing	144.6	82.1
Other	28.2	24.6

c) Port Operations, Capacity and Costs

i) Operations

Tianjin port operations are deteriorating in efficiency and quality as a result of both aging equipment and management problems. The container handling equipment is old as shown in Table 7 and some is no longer operational. The project would restore and expand the fleet of equipment by adding 3 ship-to-shore gantry cranes, 13 transtainers and 5 toploaders and reconditioning 2 transtainers and 1 ship-to-shore gantry crane. At the conclusion of the project, the terminal would have 12 gantry cranes, 27 transtainers, 13 toploaders and 38 tractors.

Table 7: Container Terminal Equipment Inventory

Type	Year Obtained	Status
Ship-to-Shore Gantry Cranes	1 – 1978 6 – 1985 2 – 1992 1 – 1997	Out of commission Have frequent breakdowns Good working order Good working order
Transtainers	3 – 1981 2 – 1984 11 – 1985 3 – 1992	Out of commission Frequent breakdowns Good working order Good working order
Toploaders	5 – 1982 4 – 1982 4 – 1992	To be decommissioned To be rehabilitated Good working order
Tractors	11 – 1985 16 – 1988 10 - 1994 12 - 1998	Allocated to back yard Good working order Good working order To be purchase this year
Trailers	47 – 1985 to 1994	

Source: THCC

There would be an average of 3 cranes per berth, each supported by 3 tractor trailers and 2 transtainers. The remaining transtainers would meet the minimum requirement for receiving and delivering cargo. The toploaders would be used for more moving the empty containers at the container freight station and for stacking the boxes in the reefer yard.

The condition of the existing equipment fleet has not been a major constraint on productivity up until now, because there was excess equipment to handle the traffic. From this year on, both the availability and reliability of the equipment will become a problem.

The current level of productivity of the equipment is shown in Table 8. Given the age and condition of the equipment, these numbers are reasonable. However, they are well below the norms of modern terminals. If the project were not undertaken, it would be necessary to rehabilitate the existing equipment within the next five years. This would provide the minimum necessary capacity, but would limit the extent to which the terminal could handle future growth in traffic.

The principal constraint on capacity and performance is the idle time of the vessels at the berth. This is estimated to exceed 50% of the time based on the typical vessels as shown in the Table 8. The causes of these delays include the time lost during inspections at the wharves by customs and other officials, due to problems with providing workable equipment, waiting for the tide by larger vessels and the time spent waiting at the berth for cargo to arrive for loading. The latter is the most significant. Unlike most competing ports, the terminal does not enforce a shutout time after which cargo will not be accepted for loading. Shipping agents allow shippers to bring containers into the terminal even after the vessel has arrived and unloaded. For the smaller vessels, the idle time accounts for half the average time at the berth. For the largest vessels, it approaches for three fourths of the total time (Table 9). Shipping lines have adapted their voyage schedules to these delays. Neither the shipping lines nor the port management have taken the initiative to reduce these delays.

Table 8: Equipment Utilization 1997

Equipment Utilization	Average Hours/TEU	TEU/Hour
S-S Gantry Cranes (8)	2,916	25.0
Transtainers (17)	2,818	24.3
Heavy Toploaders (4)	2,838	
Light Toploaders (4)	754	
Tractors	3,180	

ii) Port procedures

Table 9: Performance Characteristics for Different Size Vessels

Size (TEU Range)	Avg. TEU Transferred	Gantry Cranes	Estimated Vessel Time (hours per call)				% Idle
			Working	Idle	Total		
801	<800	431	1-2	24	12	12	50%
	1200	534	2-3	36	12	24	67%
	1800	441	2-3	30	8	22	73%
	2400	892	2-3	40	14	26	65%
	3000	959	3-4	40	14	26	65%
	>3000	894	3-4	44	11	33	75%

Source: THCC, Consultant Estimates

A reduction in idle time would have a significant impact on berth capacity as well as vessel turnaround time as shown in Table 10. A 50% reduction in idle time for the existing traffic would reduce the current berth occupancy to about 50% and save about 443 vessel days at berth. A 20% increase in throughput would reduce the time at berth by another 87 days.

The shipping lines do not have sufficient incentive to impose a shut-out time, since the greatest consequences of the excess idle time is on the utilization of port assets and on the competitiveness of the port, it is the port authorities who should impose a shutout time. This would best be done by including in their changing system penalties for the late delivery of cargo or excessive berth occupancy time. In addition, the port should monitor the idle time for vessels at the berth, recording the sources of delays. This information would be reviewed monthly and strategies put in place to reduce the major causes of delay.

Table 10: Potential Savings in Vessel Time with Productivity Improvements

Size (TEU Range)	Calls per Month	Average Savings in Vessel Time at Berth (hours)		Total Savings in berth occupancy (days/year)	
		50% idle time	20% throughput	50% idle time	20% throughput
801	>800	38.0	6	2.0	114
801	1200	24.0	12	2.0	144
1201	1800	7.3	11	.75	40
1801	2400	2.0	13	2.3	13
2401	3000	9.0	12	2.3	59
>3000		7.5	20	1.8	73

iii) Capacity Estimates

The capacity of the terminal is determined by three factors, berth occupancy, the availability of ship-to-shore cranes and the number of berths. This capacity is expected to increase over time as a result of the periodic upgrading of equipment, improvements in operations and changes in shipping patterns. In order to estimate this capacity, both crane capacity and the berth capacity were estimated. The former is based on the operating hours available, the latter on the type of vessels and crane allocation.

Crane operating hours were used to provide an upper limit on capacity. The maximum level of crane utilization was assumed to be 50% based on a berth occupancy of 75%, an effective time equal to 80% of the time at berth and an average utilization of multiple cranes of 80%. This implies a maximum average use of 4000 operating hours per crane-year. Since the current level of utilization is less than 3000 hours, the average was assumed to rise to 3500 hours then increase to 4000 hours over the next five years. For the currently operational 8 cranes, the average productivity of 25 TEU per net operating hour, implies an annual crane capacity of 700 thousand TEU, approximately the volume projected for 1998. With the addition of 3 cranes and upgrading 1 crane, the capacity of the 12 operational cranes would be 1.2 million TEU. Over time the crane productivity would increase to 35 TEU per net hour and maximum time to 4000 hours producing a capacity of 1.68 million TEU for 12 cranes.

The normal operating capacity was computed by examining vessel turnaround time and assuming 4 berths each with three cranes. The capacity was computed using two typical scenarios, an 1800 TEU vessel handling 900 TEU with 2 cranes and a 3000 TEU vessel handling 1500 TEU with three cranes. The vessel turnaround time was estimated assuming a 50% idle time which include the time required for

berthing, unberthing and waiting for the tide. With 75% berth occupancy and two berths serving the smaller vessels and two berths serving the larger vessels, the terminal would have a capacity of 780 thousand TEU.

The berth capacity is expected to increase over time as the crane productivity increases by 40%, in the next seven years. At the same time, the percentage idle time is expected to decrease by 3/5 over the same period. These combined factors would increase the terminal's capacity to 1.5 million TEU. Thus, for both the present and the future, the terminal capacity will be determined by berth availability. The capacity of the port, as shown in Figure 1, would be increased with the introduction of the additional two container berths in Basin 1 in 2002. These projections suggest that new terminals will be required by 2004 under the expected scenario.

iv) Investments

In order to maintain the productivity gains and to continue to improve terminal performance, it will be necessary to continue investing over the life of this investment. The major investment in the proposed project is the procurement of 3 new ship-to-shore gantry cranes, 13 transtainers and five toploaders. The costs for these items are shown in Table 11. These would be imported duty-free. In addition to the equipment, there would be investment in the rehabilitation of selected equipment and some improvements to the civil works. The costs of these investments are summarized in Table 12.

Table 11: Major Equipment Costs

	1998 Prices US\$ 000	RMB 000	Related RMB 000	Total RMB 000
Ship-to-Shore Gantry	\$5,200	43,160	560	43,720
Rubber Tired Gantry	\$1,300	10,790	140	10,930
Forklifts	\$500	4,150	54	4,204

These investments would be needed to replace equipment which has exceeded its technical life. For the financial analysis, an investment schedule was developed assuming 20 years economic life for ship-to-shore gantry cranes, 17 years for transtainers, 15 years for toploaders and 12 years for tractor-trailer units.

Table 12: Complementary Investments

(RMB 000)	1999	2000
Replacement of:		
Fenders	1,200	
Gantry Crane Rails	15,000	
Monitoring Wharf Bearing Cap.	300	
Expansion of Yard	18,770	
Equipment Upgrade:		
2 Transtainers	9,720	
1 Gantry Crane	14,800	
Electricity Supply Cap	1,560	
Other Local Costs	6,860	1,520

v) Operating costs

Future operating costs for the terminal were extrapolated from THCC's cost data for the last two years, as shown in Table 12. All unit costs were projected using constant prices. The costs for operating labor were divided into fixed salaries and variable incentive pay. The latter were assumed to increase in proportion to traffic. Similarly, the total costs for material and maintenance were assumed to increase with traffic. The expenditures for fuel, utilities, repair and maintenance, casual labor and safety equipment were all assumed to have both fixed components and variable components. The variable components were projected to increase at half the rate at which the traffic increases.

Table 13: THCC Operating Costs (RMB 000)

Operating Labor	1996	1997
Fixed salary	4,542	4,527
Incentive pay	8,817	10,564
Welfare payments	2,199	2,196
Fuel	2,322	2,939
Utilities	2,097	2,319
Material, Spare parts	10,315	10,185
Depreciation	21,547	22,126
Repair & Maintenance	3,213	3,484
Lease Payment to Port	13,000	13,000
Casual labor	1,927	1,580
Safety equipment	579	691
Damage claim	33	(30)
Insurance	837	621
Others	1,144	382
Manage and Overheads	34,584	40,485
Taxes on Operations	4,960	5,321
Total Operating Costs	112,117	120,390

The remaining operating costs were assumed to be constant with one exception, the costs for management overheads. These include a wide variety of management costs including the salaries of the managers, travel and office expenditures. Currently these account for 1/3 of total operating costs, well in excess of the cost for an efficient terminal management. In the cost analysis, it was assumed that these costs would decline at a rate of 4% per annum.

The taxes included in the operating costs are a 3.3%-5% tax on individual sources of revenues. In addition there is a income tax of 33% on corporate profits. This is not paid by the THCC directly but rather by TPA against its consolidated profit.

d) Financial analysis

The financial analysis of the Tianjin Harbor Container Terminal can adopt one of two viewpoints:

- replace of equipment which is no longer operational and add equipment to improve container operations;
- increase terminal efficiency and the quality of service provided by the terminal.

The first implies that the terminal is operating efficiently and requires certain equipment to be upgraded. The financial benefits derive from the introduction of this equipment. The second assumes that the investment is part of a longer term investment program to improve terminal performance. For this analysis, the latter was selected and it was assumed that the THCC continues to invest in higher throughput equipment to meet additional capacity requirements and to provide faster turnaround at the terminal.

i) Financial Feasibility

The financial benefits were determined by comparing the terminal's operating cash flow with and without the project. This approach captures the marginal revenues and expenditures from the incremental capacity provided with the project. However, it does not take account of the savings from delaying investments in additional berths as a result of the increase in capacity of the original terminal. It was assumed that these investments would be made by the private sector and therefore would not have a direct financial impact on the THCC.

In developing a "do nothing case" it was assumed that the THCC would not invest in the three gantry cranes or upgrading the fourth crane, but, instead, would reduce the supply of ship-to-shore cranes to eight and assign them two to a berth, with some flexibility for assigning a third crane to a berth as and when available. It would also increase its fleet of rubber-tired transtainers to provide sufficient support for the ship-to-shore gantry cranes. The THCC would replace these pieces of equipment at the end of their technical life, but not invest to increase their output. Instead as demand exceeds capacity, the TPA would invest in additional capacity. These new berths, however, would be equipped with three cranes of higher capacity.

In comparison with the "do nothing case", the project has an FIRR of 23.5% (19.6% when adjusted for reinvestment) and an NPV of US\$35.5million for a financial discount rate of 15% in constant value. These results are very sensitive to changes in tariffs. If the periodic adjustment in the tariffs effectively reduces the level of charges by 2% a year relative to inflation, then the FIRR drops to 18.6% and the NPV to \$13.2 million.

The feasibility is less sensitive to the rate of growth in traffic. If traffic grows at a rate 3% higher than expected , the FIRR increases to 28.2% and the NPV to \$58.1 million whereas if the rate of traffic growth drops by 3% the FIRR decreases to 12.9% and the NPV to -\$6.0 million. The feasibility is also sensitive to market share. It has been assumed that the THCC market share of the TPA container traffic will decrease by 2% a year over the life of the project but never decline below 20%. If it were to lose only 1% market share per year the FIRR would increase to 27.3% and the NPV to \$55.1 million. Alternatively, if the market share were to decrease by 2% per annum to a minimum of 20% then the FIRR would decrease to 19.8% and the NPV to \$17.6 million. At an average decline of 3%, the FIRR declines to 16.3%

The project feasibility is less sensitive to capital costs. If the capital costs are 33% higher than estimated the FIRR declines only to 18.3% and the NPV to \$17.1 million. The feasibility is also less sensitive to the cost of labor. The FIRR increases with the cost of labor because the without project scenario is more labor intensive. A 1/3 increase in labor costs increases the FIRR to 30.3%.

The project is expected to reduce administrative costs in real terms by 4% per annum versus the situation without the project of an increase in administration costs that parallels inflation. If these reductions are not realized then there will be a small drop in FIRR to 22.0% and the NPV to \$28.5 million.

The project feasibility is also sensitive to the improvement in operational performance. If there is no reduction in idle time, then the FIRR decreases to 14.9% and the NPV to -\$.4 million. If there is no improvement in crane productivity, then the FIRR drops to 21.1%.

An increase in the exchange rates will reduce the FIRR through its impact on capital costs. However, it will also increase the benefits from delaying investment in additional terminal capacity. A 50% increase in the exchange rate would reduce the FIRR to 17.2% and the NPV to \$7.8 million.

Overall the project is relatively robust in terms of financial feasibility. It will be important that the THCC adjust its charges on a regular basis, reduce berth idle time and compete actively for market share.. Since it is unlikely that the tariffs will keep with inflation, the THCC should reduce its cost of overheads so as to improve its return on investment.

ii) Financial results

While the operation of THCC is profitable, its ability to service the debt will depend on its financial structure. This structure is also important for anticipating the transfer of equity between the Tianjin Port Authority and the THCC which would be required to make the latter independent. Two scenarios were considered. The first involved domestic debt to finance the local cost component of the project whereas the second involved TPA equity financing of local project costs, RMB 350 million, from the TPA's cash reserves. The former provides a positive cash flow during the critical first five years, but the debt : service coverage would decline to 1.5 in 2002 . The latter provides a debt : service coverage ratio above 5.0 throughout the period and the net cash flow would grow twice as fast. Assuming that TPA would want to limit the level of drawdown on its cash reserves, a final scenario was developed in which TPA provides ½ the financing, RMB 175 million, in the form of equity and the other half in the form of domestic debt. The results of this scenario, as shown in the following table, maintain a debt : service coverage of over 2 throughout the period

Table 14: Financial Performance Measures - Mixed Cash and Domestic Debt (mn's RMBs)

	1999	2000	2001	2002	2003
Operating Ratio	0.86	0.71	0.68	0.65	0.56
Working Ratio	0.66	0.50	0.49	0.48	0.41
Debt : Equity	0.66	1.03	0.95	0.86	0.72
Times interest Earned	2.6	4.2	2.4	2.9	4.9
Debt Service Coverage	5.4	4.6	2.3	2.5	3.5
Return on Total Assets	3.6%	6.1%	5.7%	6.8%	10.8%
Return on Net Fixed Assets	6.8%	11.3%	11.0%	13.6%	21.1%
Return on Capital Employed	2.7%	5.0%	5.7%	6.7%	10.5%
Current Ratio	13.1	9.7	12.8	15.4	10.4

The ratios show a continuous improvement with the operating ratio dropping significantly and the return on total assets and capital employed increasing steadily. The debt service coverage declines to 2.3 in 2001 and then increases. The debt : equity ration remains below 1.0 for all years except in 2000 due in large part to existing government contribution of RMB 273 million.

The financial statements were forecast for the 1:1 mixture of equity and domestic debt are shown in the Tables 15 through 17. These were prepared based on a number of assumptions including the following:

The project will be the only major investment of the THCC over the next five years:

1. Domestic loan fixed annual payment, 8 years, 10% interest, no grace period
2. Average income tax rate of 33%
3. Surplus taxed at a rate of 33%
4. Slight positive non-operating income
5. Return on Long term investments of 5%, short term investments 4%
6. Accounts receivable 7 days operating revenue, accounts payable 40 days operating expenses

The dramatic increase in profitability from 1999 to 2000 occurs because of the simultaneous adjustment of the tariff which is expected to increase by 20% in line with the previous three years inflation and the 33% jump in traffic as the constraint on capacity is removed. This would increase revenues by over 50% from 1999 to 2000. The operating expenses would increase by 40% due to the dramatic increase in costs of depreciation. Profits would moderate over the next two years assuming no adjustment in tariffs and then experience a second dramatic increase as tariffs are again adjusted in 2003. Without the periodic adjustments, the TPA would continue to operate with a surplus, but the level of profit would be significantly reduced. With continuous adjustments in tariffs, the profits would grow in a more linear fashion.

Table 15: Profit and Los Statement for Mixed Cash and Domestic Debt (million RMBs)

	1999	2000	2001	2002	2003
Operating Revenues	174.5	273.6	303.7	336.6	437.5
Operating Expenses:					
Operating Labor	23.0	29.8	34.1	39.1	44.4
Materials	19.9	27.2	31.8	37.0	42.5
Depreciation	33.8	57.4	57.4	57.6	66.5
Repair & Maintenance	4.2	5.2	5.8	6.5	7.2
Lease Payment to Port	14.6	15.5	16.4	17.4	18.4
Others	2.0	2.2	2.3	2.4	2.5
Total Operating Expenses	97.5	137.3	147.9	160.1	181.6
Manage and Overheads	46.3	47.1	47.9	48.8	49.6
Taxes on Gross Revenues	5.9	9.3	10.3	11.4	14.9
Net Operating Income	24.7	80.0	97.6	116.3	191.4
Non-Operating income	(0.4)	0.0	0.3	0.5	1.1
Investment Income	3.0	7.2	6.5	8.8	11.7
Gross Profit	27.2	87.2	104.3	125.6	204.1
Interest	10.3	20.9	43.6	42.6	41.4
Income after Interest	17.0	66.3	60.7	83.0	162.7
Losses on Foreign Exchange Loans	0.0	4.4	7.5	7.6	7.8
Income Tax	5.6	21.9	20.0	27.4	53.7
After Tax Profit	11.4	40.0	33.2	48.0	101.3

The Balance Sheet was constructed using the Profit and Loss Statement and a number of assumptions regarding current assets and liabilities. These were:

1. Accounts receivable held to 10 days of operating revenues
2. Accounts payable maintained at 40 days operating expenses
3. Accounts payable to TPA set at 1 ½ months average payments
4. Fuel inventory at 3 weeks of average requirements
5. Materials inventory held at 4 months of requirements
6. Cash on hand maintained at 1 months operating expenses
7. Welfare accrual equivalent to 6 weeks added to cumulative total
8. Tax accrual equivalent to 4 weeks of income tax

Investments in fixed assets other than those associated with the project were assumed to average RMB 20 million over the next five years after adjusting for inflation. No attempt was made to project the amount of this investment that would be in the form of Work-in-Progress. The latter was held at RMB3 million. Liquid assets, especially short term investments would increase dramatically in 1999 as a result of the TPA cash infusion and the disbursements from the Bank loan and domestic borrowings. Thereafter they would continue at that level and gradually increase as retained earnings increased. The retained earnings, combined with the TPA cash contribution would result in an increase in THCC equity from RMB 0.41 billion in 1999 to RMB 0.71 billion in 2003. During the same period the amount of long term debt would remain relatively unchanged at about RMB 0.55 billion.

Table 16: Balance Sheet for Mixed Cash and Domestic Debt (million RMBs)

	1999	2000	2001	2002	2003
Assets					
Current Assets:					
Cash in Bank	8.1	11.4	12.3	13.3	15.1
Short Term Investments	137.2	111.8	162.4	222.6	165.2
Others Current Assets	10.4	14.8	16.7	18.9	23.0
Total Current Assets	155.7	138.0	191.4	254.8	203.3
Long Term Investments	34.7	40.0	46.2	56.4	67.6
Fixed Assets:					
Plant and Equipment	750.8	1,209.3	1,232.8	1,256.6	1,456.5
Less :Cumulative Deprec.	246.2	303.7	361.1	418.6	485.1
Residual Value	504.6	905.6	871.7	837.9	971.4
Work-in Progress	2.5	2.5	2.5	2.5	2.5
Total Fixed Assets	507.1	908.1	874.2	840.4	973.9
Total Assets	697.5	1,086.1	1,111.8	1,151.7	1,244.9
Liabilities					
Current Liabilities	11.9	14.2	15.0	16.6	19.8
Long Term Debt	271.6	542.9	534.6	524.9	513.5
Total Liabilities	283.5	557.1	549.6	541.5	533.3
Equity					
Government contribution	273.4	273.4	273.4	273.4	273.4
TPA Equity Contribution	100.0	175.0	175.0	175.0	175.0
Capital Surplus	2.9	2.9	2.9	2.9	2.9
Retained Earnings	37.7	77.7	111.0	159.0	260.3
Total Equity	413.9	529.0	562.2	610.2	711.5
Total Liabilities + Equity	697.5	1,086.1	1,111.8	1,151.7	1,244.9

The cash flow for the THCC was developed from the Income and Expense statement and the schedule of investment and debt repayment. The net cash flow would be negative in 2000 and 2003 because of major capital investments but otherwise would be positive. The negative cash flow in 2003 is based on the assumption that the THCC would finance the investment through its own funds rather than debt which is more likely. The cumulative cash flow would increase from 1998 to 2002 by an amount equivalent to the cash contribution from TPA.

Table 17: Cash Flow Statement for Mixed Cash and Domestic Debt (million RMBs)

	1999	2000	2001	2002	2003
After Tax Profit	11.4	40.0	33.2	48.0	101.3
Plus : Depreciation	33.8	57.4	57.4	57.6	66.5
Plus : Foreign Exchange Losses	0.0	4.4	7.5	7.6	7.8
Plus : Increases in S.T. Liabilities	0.5	2.3	0.8	1.6	3.2
Plus : Loan Disbursements	271.6	271.5	0.0	0.0	0.0
Plus : Equity Contribution	100.0	75.0	0.0	0.0	0.0
Sources subtotal	417.2	450.6	98.9	114.8	178.7
Less : Capital Investments	322.9	458.5	23.5	23.8	200.0
Less : Long Term Investments	4.4	4.9	5.8	9.6	10.7
Less : Principal Repayment	0.0	4.6	15.8	17.3	19.1
Less : Changes in Non Cash Assets	0.2	4.5	1.9	2.2	4.1
Net Cash Flow	89.8	(21.8)	51.9	61.9	(55.1)
Cumulative Cash Flow	113.2	91.4	143.3	205.1	150.0

B. Inland Container Depots (ICDs)

All ICDs will be incorporated as limited liability companies, but the equity investors will be from different interests in each case (see Annex 20 for details of the corporate and equity structure of each ICD). The first objective of the financial analysis of the ICDs is to determine whether they are likely to generate sufficient operating revenues each year to cover their direct operating costs and repay their on-lent share of the Bank loan. A further objective is to determine whether their other credits can be repaid and what would be the final rate of return for their equity investors.

a) Activities

Each ICD is expected to become involved in three revenue and cost generating activities: (i) containers handling/storage, (ii) freight forwarding services and (iii) the transport of containers between the ICD and the port and between the ICD and the final inland origin/destination of the freight. The first of these is the raison d'être of the depots, and generates significant revenue but also incurs the major capital costs. Any depot that relies on this activity for all of its revenue has no prospect of financial viability. For this reason as well as offering a more integrated service to users of the terminal, all ICDs are assumed to undertake freight forwarding services. These require little investment (communications facilities and office space), have low operating costs and produce substantial revenues. The charges for this service are high because of the detailed knowledge and information needed to provide a good service. Since the ICD operators do not have licenses to provide these services they would provide this service through a licensed forwarder and pay a fee for this arrangement. The revenue that can be generated are limited by the number of clients and number of containers that can be moved through the terminal, and the fee paid to the license holder. The combined revenue from container handling in the ICD and the freight forwarding

will be enough to provide a positive cash flow. The ICD operators will also participate in trucking services to and from the ICD both to generate additional revenue and to capture sufficient traffic for the ICD. It is necessary to provide a guaranteed transport service between the port and the ICD in order for the ICD to be nominated as an empty container returning point by the shipping lines. This is essential if the cost-savings relative to loading and unloading containers in the port is to be realized. Trucking services are also important in order that the operator can provide his clients with a fully integrated service which is expected in China (such as is already provided by Sinotrans).

Two alternative scenarios have been evaluated. The first assumes that the ICD companies are unconstrained in their investment in trucks to maintain their market share after the first five years of operation, while the second assumes that they are constrained to the number of trucks provided under the World Bank loan. The first scenario represents a free-market situation where the possibility of the ICD operators dominating the market for trucking services to their terminal is not an issue. The second scenario represents the outcome of a policy to stimulate competition in the trucking market by preventing the ICDs from exercising their potential monopoly power. Unless stated to the contrary, all results described here relate to the second scenario.

b) Revenues

The estimate of revenue flows for each ICD assumes that the existing state recommended tariffs for container handling and transport continue to apply and that the standard commercial rates will apply for freight forwarding activities undertaken by the ICD operating company. Some of the tariffs are different according to the province and/or distance of the ICD from the port. These differences are indicated in the table following the description of each revenue generating activity:

i) ICD operating activities

Container stacking charge: 60 RMB per TEU for placing a box on the stack in the ICD yard or for removing it from the stack. For all FCL Direct Port to Port there is no charge, for FCL Direct with the empty box to or from the yard there is no charge, for FCL indirect there are two charges inbound but no charges outbound, for LCL there are two charges for inbound and one charge for outbound.

Container storage: 6 per TEU-day for storage of the container in the ICD yard. This would be charged for loaded boxes assuming an average of 2.5 days beyond the 5 day free time for FCL indirect and 2 days for LCL. For empty boxes the charges would be paid by the shipping lines and were calculated assuming 5 days beyond the free time for each move of the empty (Port to ICD, FCL Direct Inbound, FCL Indirect Inbound upon return, LCL Inbound after unstuffing).

Container Stuffing/Unstuffing: 60 RMB per TEU for loading and unloading breakbulk cargo into/from the container. This would be charged for all LCL inbound and outbound.

Container cleaning: 50 RMB per TEU for washing inside of containers. This would be performed on of the empty boxes used for stuffing LCL outbound.

Cargo checking: 3 RMB per ton for tallying cargo. This would be charged on all inbound and outbound LCL containers during unstuffing and stuffing. This assumes an average of 10.5 tons per TEU.

Container repair: 500 RMB per TEU for repair of damaged boxes. This would be charged on 10% of the inbound boxes handled in the stack i.e. FCL indirect inbound and LCL inbound.

Breakbulk storage: 0.3 RMB per ton-day charged for all cargo delivered to the ICD for stuffing and for LCL cargo unstuffed in the port, i.e. total LCL inbound and outbound. This assumes 2.5 days beyond the free time and 10.5 tons per TEU.

Sealing: 10 RMB per TEU for sealing container. This would be charged to all LCL outbound.

ii) **Freight Forwarding Activities**

Freight forwarding: RMB 400 per TEU for consolidating and arranging transport. This would be charged to all outbound boxes using the ICD, i.e. FCL indirect and LCL. The full charge would be 500 RMB but the ICDs do not have licenses to operate as forwarders and would have to pay a fee to the holder of the license.

EDI: 10 RMB per TEU for tracking boxes. This would be charged to all inbound boxes.

iii) **Transport Activities**

Container Transport: 6 RMB per TEU kilometer for moving the containers on ICD trailers, this applies to all movement of loaded containers. Empty movements are priced at 2 RMB and charged to shipping lines.

Breakbulk transport: 0.3 RMB per ton-km for transport of breakbulk cargo between the shipper/consignee and the ICD. This would be charged when using ICD trucks (33% of total movements for selected ICDs).

c) Costs

The principal costs taken into account in the financial analyses were the operating costs for the terminal, the truck fleet and the forwarding services as well as debt amortization and national taxes on gross taxable incomes.

Operating costs

Annual operating costs were estimated for each principal activity. Labor costs, including management, make up about 20% of operating costs, the remainder being vehicle fuel and maintenance (about 60%) and fixed costs (about another 20%, mostly vehicle taxes). However, annual operating costs typically make up only about half the total costs with amortization accounting for most of the other half.

Loan amortization

In the financial analysis it was assumed that the World Bank loan would be passed on to the final borrowers, the ICD operating companies at the same terms as the Bank loan to the Ministry of Finance. Other commercial loans were assumed to attract interest rates of 10% in real terms for long term loans (5 years or longer, mostly for vehicles) and 9% for short term loans (mostly for working capital). The debt : equity ratio was assumed to remain below 1.5.

d) Financial feasibility

The financial feasibility was computed using the present value of the operating cash flow and a discount rate of 15%. Cash flows were estimated separately for the basic terminal operation, the trucking activity, and freight forwarding service and then combined for the full operation. The projected flows were computed for various scenarios to determine the robustness of the financial viability. The expected cash flow was then used to construct financial statements for each of the ICDs in order to determine both the expected rates of return and the robustness of their proposed financial structures.

Six of the ICDs are projected to have a negative present value for the operating cash flow from terminal operations as shown in Table 18. This is an indication of the high capital and operating costs and low tariffs for container handling. On the other hand, freight forwarding has few fixed costs activities and produces positive operating cash flow from the first year of operation. In four of the ICDs, the present value of the revenues from freight forwarding are sufficient to compensate for the negative present value of the ICD operations even though the combined operating cash flow is negative in the early years. The trucking services in five of the ICDs produce a significant contribution in terms of the present value of operating costs. Only two produce a loss and this is relatively small. When the trucking services are combined with the other activities, all but one of the ICDs show a positive present value as well as positive annual flows from the second year of operation onwards. Huzhou has a relatively small negative value. Further investigation of the investment proposals and staffing levels of this ICD will be made to determine whether they are compatible with the level of demand projected.

These projections are based on the expected level of traffic. This level assumes that the ICD's will handle a moderate share of the projected regional container market (23%-59% depending on the ICD) and that its market share will increase up to 2005 (28%-70%) and then level off.

Table 18: Projection of Financial Performance (Yuan '000)

Financial Indicator	Bao Ding	Bao Tou	Cang Zhou	Han Dan	Huzhou	Qui Huang Dao	Tangshan	Xiao Shan	Xintang
NPV Trucking	\$766	\$9,018	\$509	\$3,363	(\$60)	\$1,325	\$259	(\$100)	\$215
IRR Trucking	31%	143%	25%	74%	12%	41%	19%	14%	17%
NPV ICD	(\$789)	(\$5,195)	(\$487)	(\$318)	\$380	\$755	\$1,294	\$2,127	\$1,485
IRR ICD	8%	-21%	10%	12%	18%	20%	28%	30%	23%
NPV Forwarding	\$861	\$793	\$934	\$1,011	\$415	\$1,848	\$1,724	\$1,252	\$605
NPV Total	\$837	\$4,616	\$956	\$4,056	\$734	\$3,928	\$3,277	\$3,279	\$2,305
IRR Total	19.8%	26.2%	20.9%	39.8%	19.8%	34.9%	33.5%	28.0%	22.3%

e) Sensitivity tests

Given the large number of variables that could influence the financial outcomes, a variety of sensitivity tests were undertaken. Among the possible factors considered were lower rates of growth in traffic, slower build-up in demand (longer "ramp-up" periods), higher operating and capital costs , and less efficient operations. The results as shown in Table 19 indicate that most of the ICDs are secure against most of the risks with the exception of Huzhou which has marginal financial returns.

Table 19: Financial Sensitivity test results

ICD	Expected	Low demand FIRR	Longer "ramp-up" period FIRR	Higher Capital Cost	Higher Labor Cost	Lower Speed
Baoding	19.8%	14.5%	12.3%	14.6%	18.7%	16.8%
Baotou	26.2%	22.1%	16.1%	19.5%	25.3%	21.4%
Cangzhou	20.9%	16.1%	13.4%	15.5%	19.5%	14.2%
Handan	39.8%	37.9%	24.1%	29.7%	38.4%	31.4%
Huzhou	19.8%	13.7%	11.7%	15.2%	17.4%	18.7%
Quihuangdao	34.9%	32.4%	23.6%	27.0%	34.0%	31.2%
Tangshan	33.5%	31.2%	23.2%	25.4%	32.1%	28.6%
Ziaoshan	28.0%	25.7%	19.5%	21.7%	26.0%	24.0%
Xintang	22.3%	18.9%	14.2%	16.0%	20.4%	17.6%

Bold = returns less than discount rate

f) Financial performance

Since the ICD's do not currently exist, it was necessary to project the financial performance of the 10 companies based on a number of operating assumptions. Some of these are summarized below. Using these assumptions and the projection of operating cash flow, pro forma financial statements were prepared for the first five years of operation. These include the debt service on the World Bank loan which is presumed to be on-lent to the companies at terms similar to those for the original loan. It also includes local funds in the form of cash equity as proposed by the ICD proponents. The amounts for each ICD are shown in Table 21.

Table 20: Assumptions Used in Preparing Financial Statements

-
- Accounts receivable equivalent to 15 days of revenue
 - Accounts payable are equivalent to 30 days for average expenditures
 - Inventories are equal to 3 months of spare parts, fuel and lube
 - The minimum cash on hand is the 3 weeks of operation costs
 - Payroll accruals are equal to 2 weeks of wages, salaries and benefits.
 - Disbursement of the debt matched the time for investment in trucks and yard equipment.
 - Cash equity provided in the first year of operation.
 - Procurement of assets occurs early in the fiscal year along with disbursement of loan funds
 - All of the ICD profits were retained rather than disburse to workers or management.
-

Table 21: ICD Debt and Equity Structure (1,000 RMB except as noted)

ICD	WB Loan 000US\$	Cash,	Domestic debt	Equity in Kind *	Working Capital
Bao Ding	\$ 3,146	8,006	8,000	1,139	752
BaoTou	\$ 6,808	15,637	23,719	3,196	1,156
Cang Zhou	\$ 2,749	6,965	5,000	1,676	942
Han Dan	\$ 3,265	8,982	9,159	1,036	922
Huzhou	\$ 3,686	16,140	0	1,856	98
Qui huang Dao	\$ 3,007	7,815	6,900	1,435	699
Tangshan	\$ 3,614	9,740	0	1,673	942
Xiao Shan	\$ 4,258	9,398	19,140	1,400	886
Xintang	\$ 5,877	14,767	22,318	3,625	1,114
Total	\$36,410	97,450	94,236	17,036	7,511

Source : ICD proponents as reported to Consultants * land, buildings, equipment

The financial ratios from the income and expense statements as shown in Table 22 indicate that only half of the ICDs generate a profit in the first year but profitability increases rapidly within the first two years as the utilization of equipment improves with the growth in traffic. By 2005, all ICDs are generating substantial profits. Operating ratios in the first year are between 0.71 and 1.08 but drop to between 0.59 and 0.83 within two years and reach 0.49-0.70 by 2005.

Table 22: Financial Performance Ratios for ICDs in 2000, 2002, 2005

	Operating Ratio			Working Ratio			Profit After Tax and Interest		
	2000	2002	2005	2000	2002	2005	2000	2002	2005
Bao Ding	1.02	0.79	0.59	0.60	0.55	0.49	(1,591)	69	5,318
BaoTou	0.75	0.66	0.56	0.56	0.55	0.51	2,324	5,694	18,784
Cang Zhou	1.08	0.82	0.60	0.63	0.57	0.51	(1,882)	(320)	5,483
Han Dan	0.71	0.66	0.58	0.57	0.53	0.48	2,950	4,483	11,418
Huzhou	1.08	0.80	0.54	0.73	0.58	0.43	(1,072)	288	4,741
Qui huang Dao	0.70	0.59	0.49	0.52	0.46	0.39	1,566	3,714	11,808
Tangshan	0.82	0.67	0.55	0.52	0.49	0.45	634	2,567	10,276
Xiao Shan	0.98	0.81	0.62	0.64	0.61	0.53	(1,555)	484	10,716
Xintang	0.92	0.83	0.70	0.68	0.67	0.63	(820)	464	9,324

The rates of return are substantial for all of the ICDs as shown in Table 23. The return on total assets range from only 4.3% to 24% in 2000 but increase to a minimum of 14% by 2005. These estimates are based on the historical value of the plant and equipment rather than a replacement value so the increase over time is somewhat overstated. The return on net fixed assets is substantially higher and increases more rapidly because of the decreasing asset value due to cumulative depreciation.

Table 23: Return on Assets for the ICDs

	Return on Net Fixed Assets			Return on Total Asset*			Return on Capital Employed		
	2000	2002	2005	2000	2002	2005	2000	2002	2005
Bao Ding	12.8%	15.9%	39.4%	11.2%	11.8%	17.5%	8.9%	11.7%	16.9%
BaoTou	16.7%	19.9%	41.2%	15.9%	14.5%	17.3%	12.8%	14.1%	16.6%
Cang Zhou	10.9%	14.5%	36.8%	9.4%	11.0%	17.3%	7.5%	11.0%	16.8%
Han Dan	31.7%	32.5%	72.2%	24.0%	17.8%	18.4%	17.4%	17.2%	17.7%
Huzhou	5.9%	10.8%	29.4%	4.3%	7.3%	14.0%	3.8%	7.3%	13.5%
Qui huang Dao	20.5%	24.0%	56.6%	17.5%	15.7%	19.3%	13.3%	15.2%	18.3%
Tangshan	19.3%	22.1%	54.8%	14.9%	13.9%	18.3%	11.1%	13.6%	17.6%
Xiao Shan	22.9%	23.7%	80.9%	17.3%	14.8%	22.7%	12.0%	14.6%	21.7%
Xintang	20.9%	21.3%	53.1%	16.6%	13.7%	17.8%	12.0%	13.6%	17.4%

All of the ICDs have a positive cash flow from the first year. The increase in both the net annual cash flow and the cumulative cash flow is substantial for all of the ICDs. There are adequate reserves to cover the debt service even in 2005 when the repayment of the World Bank loan begins. Furthermore, the buildup of cash is sufficient to fund the replacement of the tractor-trailer fleet at the end of 7 years.

Table 24: Net and Cumulative Cash Flow for ICDs (1000 RMB)

	Net Cash Flow			Cumulative Cash Flow		
	2000	2002	2005	2000	2002	2005
Bao Ding	2,306	4,414	7,770	5,206	13,000	33,618
Bao Tou	10,294	16,667	24,609	7,392	38,280	105,881
Cang Zhou	1,980	4,121	7,780	5,631	12,634	32,903
Han Dan	7,234	10,878	14,674	12,384	32,722	74,160
Huzhou	768	2,553	6,127	11,901	15,842	30,650
Qui huang Dao	5,846	9,081	14,486	8,548	25,195	63,890
Tangshan	5,143	8,345	13,354	12,664	27,767	63,617
Xiao Shan	4,436	7,376	14,356	11,194	24,182	60,418
Xintang	6,730	10,347	14,963	14,545	33,591	75,171

There is no difficulty with the availability of cash as indicated by the current ratio. This is due in large part to the additional cash equity provided to cover working capital in the first year followed by a positive cash flows in following years. The coverage of interest, as measured by times interest earned, is above 3.0 for all ICDs except Huzhou during the initial five years. Similarly, debt service coverage is above 2.5 except for Huzhou.

The projected financial statements for each of the ICD's is shown in Tables 25A-25H. They all show a steadily improving financial performance over the first five years of operation. The financially weakest are Huzhou and Cang Zhou but both achieve positive financial results within three years of commencing operations.

Despite the positive cash flow, the ICDs do not generate sufficient funds to cover a commercial loan with its shorter period and lack of a grace period. In this sense, the World Bank loan is critical to the success of these ventures.

All of the ICDs with the exception of Huzhou appear to be financially robust. However, this is an innovative venture and there is always a risk of failure. Even if one or two should fail, the assets financed by the Bank loan would remain in productive use and would likely be used in ways that still fulfill the objectives of the project. The container trucks are highly mobile assets and would be easily marketable to other companies active in the transport of containers. The civil works, which represent only a small proportion of the loan funds are adaptable to other transport uses or marketable to other operators of container services.

Table 25A: Summary Financial Statements for Bao Ding

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		8,118	10,207	12,836	16,139	20,292	25,515
Operating Expenses		3,990	4,669	5,618	6,781	8,322	10,095
Management Expenses		1,083	1,188	1,318	1,468	1,652	1,859
Depreciation		3,184	3,184	3,184	3,184	3,184	3,184
Operating Surplus		(140)	1,166	2,716	4,705	7,134	10,377
Interest Income		145	189	295	473	715	1,037
Interest Expense		1,186	1,902	1,940	1,979	2,018	2,059
Taxes		268	337	458	1,230	2,186	3,461
Foreign Exchange		142	533	543	554	565	577
Net Income		(1,591)	(1,416)	69	1,415	3,079	5,318
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	2,900	4,900	7,251	11,116	16,354	23,293	31,331
Non-Depreciable Assets	11,390	11,390	11,390	11,390	11,390	11,390	11,390
Plant and Equipment	12,204	28,415	25,230	22,046	18,861	15,677	12,492
Total Assets	26,494	44,705	43,871	44,552	46,605	50,360	55,214
Current Liabilities	—	264	314	382	466	577	706
Long Term Debt	7,102	26,639	27,172	27,715	28,270	28,835	28,241
Total Liabilities	7,102	26,903	27,486	28,098	28,736	29,411	28,948
Equity	19,392	17,801	16,385	16,454	17,869	20,948	26,266
Initial Contribution	19,392	19,392	19,392	19,392	19,392	19,392	19,392
Retained Earnings	—	(1,591)	(3,007)	(2,938)	(1,523)	1,556	6,874
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	(1,591)	(1,416)	69	1,415	3,079	5,318
Plus: Depreciation	201	3,184	3,184	3,184	3,184	3,184	3,184
Plus: ForEx Losses	—	142	533	543	554	565	577
Total Operating Cash Flow	201	1,736	2,301	3,797	5,154	6,829	9,079
Plus: Equity Cash Contribution	8,002	—	—	—	—	—	—
Plus: Increase Current Liabilities	—	264	50	68	84	110	130
Plus: Loan Disbursements	7,102	19,395	—	—	—	—	—
Less: Repayment of Loans	—	0	0	0	0	0	1,170
Less: Capital Expenditure	12,404	19,395	—	—	—	—	—
Less: Increase Non Cash Current Assets	—	821	196	249	312	392	490
Net Cash Flow	2,900	1,179	2,154	3,617	4,926	6,547	7,549
Cumulative Cash Flow	2,900	4,079	6,234	9,850	14,776	21,323	28,872

Table 25B: Summary Financial Statements for Bao Tou

Income and Expenses	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		32,283	38,047	44,972	53,315	63,400	75,628
Operating Expenses		13,902	16,389	18,960	21,950	25,666	30,043
Management Expenses		2,774	3,082	3,405	3,768	4,198	4,690
Depreciation		7,508	7,508	7,508	7,508	7,508	7,508
Operating Surplus		8,100	11,068	15,099	20,089	26,028	33,388
Interest Income		(145)	195	746	1,436	2,298	3,365
Interest Expense		2,982	4,490	4,579	4,671	4,764	4,860
Taxes		2,210	2,661	4,289	6,309	8,737	11,748
Foreign Exchange		438	1,258	1,283	1,308	1,335	1,361
Net Income		2,324	2,854	5,694	9,237	13,490	18,784
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	(2,902)	8,352	20,141	34,814	53,087	75,690	100,904
Non-Depreciable Assets	23,755	23,755	23,755	23,755	23,755	23,755	23,755
Plant and Equipment	49,619	82,661	75,153	67,645	60,137	52,629	45,120
Total Assets	70,472	114,769	119,049	126,214	136,979	152,073	169,779
Current Liabilities	—	984	1,153	1,341	1,560	1,830	2,153
Long Term Debt	21,892	62,880	64,138	65,421	66,729	68,063	66,662
Total Liabilities	21,892	63,864	65,291	66,762	68,289	69,894	68,815
Equity	48,580	50,904	53,758	59,452	68,689	82,179	100,964
Initial Contribution	48,580	48,580	48,580	48,580	48,580	48,580	48,580
Retained Earnings	—	2,324	5,178	10,872	20,109	33,599	52,384
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	2,324	2,854	5,694	9,237	13,490	18,784
Plus : Depreciation	372	7,508	7,508	7,508	7,508	7,508	7,508
Plus : Foreign Exchange Losses	—	438	1,258	1,283	1,308	1,335	1,361
Total Operating Cash Flow	372	10,270	11,620	14,485	18,054	22,333	27,654
Plus : Equity Cash Contribution	15,637	—	—	—	—	—	—
Plus : Increases in Current Liabilities	—	984	169	189	219	270	323
Plus : Loan Disbursements	21,892	40,550	—	—	—	—	—
Less : Repayment of Loans	—	0	0	0	0	0	2,763
Less : Capital Expenditure	40,803	40,550	—	—	—	—	—
Less: Increases in Non Cash Current Assets	—	3,496	594	705	847	1,022	1,236
Net Cash Flow	(2,902)	7,758	11,194	13,968	17,426	21,581	23,978
Cumulative Cash Flow	(2,902)	4,857	16,051	30,019	47,445	69,025	93,004

Table 25C: Summary Financial Statements for Cang Zhou

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		7,721	9,887	12,656	16,200	20,732	26,530
Operating Expenses		3,814	4,611	5,634	6,808	8,417	10,464
Management Expenses		1,321	1,451	1,604	1,774	1,984	2,234
Depreciation		3,183	3,183	3,183	3,183	3,183	3,197
Operating Surplus		(596)	642	2,235	4,434	7,148	10,635
Interest Income		182	213	296	453	686	1,007
Interest Expense		1,106	1,864	1,901	1,939	1,978	2,017
Taxes		255	326	418	1,152	2,208	3,576
Foreign Exchange		108	522	532	543	554	565
Net Income		(1,882)	(1,857)	(320)	1,253	3,094	5,483
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	3,650	5,303	7,207	10,675	15,738	22,684	30,787
Non-Depreciable Assets	13,500	13,500	13,500	13,500	13,500	13,500	13,500
Plant and Equipment	10,960	28,387	25,204	22,021	18,839	15,656	12,602
Total Assets	28,110	47,190	45,912	46,196	48,077	51,840	56,889
Current Liabilities	--	245	301	373	458	573	720
Long Term Debt	5,385	26,102	26,624	27,157	27,700	28,254	27,672
Total Liabilities	5,385	26,347	26,926	27,530	28,157	28,826	28,392
Equity	22,725	20,843	18,986	18,666	19,920	23,014	28,497
Initial Contribution	22,725	22,725	22,725	22,725	22,725	22,725	22,725
Retained Earnings	--	(1,882)	(3,739)	(4,058)	(2,805)	289	5,772
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	--	(1,882)	(1,857)	(320)	1,253	3,094	5,483
Plus : Depreciation	201	3,183	3,183	3,183	3,183	3,183	3,197
Plus : ForEx Losses	--	108	522	532	543	554	565
Total Operating Cash Flow	201	1,409	1,848	3,395	4,979	6,831	9,245
Plus : Equity Cash Contribution	6,965	--	--	--	--	--	--
Plus : Increase Current Liabilities	--	245	56	72	85	115	147
Plus : Loan Disbursements	5,385	20,610	--	--	--	--	--
Less : Repayment of Loans	--	0	0	0	0	0	1,147
Less : Capital Expenditure	8,901	20,610	--	--	--	--	143
Less: Increases Non Cash Current Assets	--	741	199	256	325	418	534
Net Cash Flow	3,650	912	1,705	3,211	4,739	6,528	7,569
Cumulative Cash Flow	3,650	4,562	6,267	9,478	14,218	20,745	28,315

Table 25D: Summary Financial Statements for Han Dang

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		21,737	25,160	29,169	33,883	39,448	46,047
Operating Expenses		9,429	11,180	12,918	14,671	16,858	19,578
Management Expenses		1,706	1,909	2,115	2,327	2,578	2,876
Depreciation		4,234	4,234	4,234	4,234	4,234	4,248
Operating Surplus		6,368	7,837	9,902	12,652	15,778	19,344
Interest Income		257	509	886	1,336	1,883	2,542
Interest Expense		1,386	2,400	2,448	2,497	2,547	2,598
Taxes		2,171	2,297	3,171	4,310	5,625	7,143
Foreign Exchange		118	672	686	699	713	728
Net Income		2,950	2,977	4,483	6,481	8,776	11,418
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	5,150	13,113	21,111	30,636	42,179	56,060	71,027
Non-Depreciable Assets	10,260	10,260	10,260	10,260	10,260	10,260	10,260
Plant and Equipment	9,814	33,194	28,960	24,726	20,492	16,258	12,153
Total Assets	25,224	56,568	60,332	65,622	72,931	82,578	93,440
Current Liabilities	—	661	776	897	1,026	1,183	1,377
Long Term Debt	5,882	33,614	34,286	34,972	35,671	36,385	35,635
Total Liabilities	5,882	34,276	35,062	35,869	36,697	37,568	37,012
Equity	19,342	22,292	25,269	29,753	36,234	45,010	56,428
Initial Contribution	19,342	19,342	19,342	19,342	19,342	19,342	19,342
Retained Earnings	—	2,950	5,928	10,411	16,892	25,668	37,086
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	2,950	2,977	4,483	6,481	8,776	11,418
Plus : Depreciation	201	4,234	4,234	4,234	4,234	4,234	4,248
Plus : ForEx Losses	—	118	672	686	699	713	728
Total Operating Cash Flow	201	7,302	7,884	9,403	11,415	13,724	16,394
Plus : Equity Cash Contribution	8,982	—	—	—	—	—	—
Plus : Increase Current Liabilities	—	661	115	121	129	157	194
Plus : Loan Disbursements	5,882	27,615	—	—	—	—	—
Less : Repayment of Loans	—	0	0	0	0	0	1,477
Less : Capital Expenditure	9,915	27,615	—	—	—	—	143
Less: Increases Non Cash Current Assets	—	2,281	356	412	482	572	681
Net Cash Flow	5,150	5,682	7,643	9,112	11,061	13,309	14,287
Cumulative Cash Flow	5,150	10,832	18,475	27,587	38,648	51,957	66,244

Table 25E: Summary Financial Statements for Huzhou

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		4,235	5,385	6,856	8,737	11,147	14,238
Operating Expenses		2,277	2,536	2,987	3,363	3,977	4,707
Management Expenses		1,636	1,753	1,891	2,030	2,195	2,377
Depreciation		1,896	1,896	1,896	1,896	1,896	1,896
Operating Surplus		(1,575)	(800)	82	1,448	3,079	5,257
Interest Income		557	529	536	581	690	852
Interest Expense		846	1,242	1,266	1,292	1,318	1,344
Taxes		140	178	226	317	934	1,763
Foreign Exchange		133	348	355	362	369	376
Net Income		(2,137)	(2,038)	(1,230)	58	1,149	2,626
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	11,132	11,149	11,370	12,419	14,759	18,212	22,393
Non-Depreciable Assets	7,630	7,630	7,630	7,630	7,630	7,630	7,630
Plant and Equipment	18,089	26,809	24,913	23,017	21,121	19,225	17,329
Total Assets	36,851	45,588	43,913	43,066	43,510	45,067	47,353
Current Liabilities	—	125	141	168	193	232	280
Long Term Debt	6,641	17,389	17,737	18,092	18,454	18,823	18,435
Total Liabilities	6,641	17,514	17,878	18,260	18,646	19,055	18,715
Equity	30,210	28,074	26,035	24,805	24,864	26,012	28,638
Initial Contribution	30,210	30,210	30,210	30,210	30,210	30,210	30,210
Retained Earnings	--	(2,137)	(4,175)	(5,405)	(5,346)	(4,198)	(1,572)
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	(2,137)	(2,038)	(1,230)	58	1,149	2,626
Plus : Depreciation	167	1,896	1,896	1,896	1,896	1,896	1,896
Plus : ForEx Losses	--	133	348	355	362	369	376
Total Operating Cash Flow	167	(108)	206	1,021	2,316	3,414	4,898
Plus : Equity Cash Contribution	16,140	—	—	—	—	—	—
Plus : Increase Current Liabilities	—	125	16	28	24	39	48
Plus : Loan Disbursements	6,641	10,616	--	--	--	--	--
Less : Repayment of Loans	--	0	0	0	0	0	764
Less : Capital Expenditure	11,816	10,616	--	--	--	--	--
Less: Increases Non Cash Current Assets	--	334	78	103	127	168	215
Net Cash Flow	11,132	(317)	144	945	2,213	3,285	3,966
Cumulative Cash Flow	11,132	10,815	10,959	11,903	14,116	17,401	21,367

Table 25F: Summary Financial Statements for Qui Huang Dao

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		13,647	16,576	20,275	24,963	30,921	38,512
Operating Expenses		4,827	5,820	6,940	8,488	10,349	12,825
Management Expenses		1,053	1,176	1,313	1,487	1,689	1,943
Depreciation		3,642	3,642	3,642	3,642	3,642	3,990
Operating Surplus		4,125	5,937	8,380	11,347	15,242	19,753
Interest Income		135	342	641	1,023	1,507	2,124
Interest Expense		1,323	2,152	2,195	2,239	2,284	2,329
Taxes		1,222	1,530	2,498	3,688	5,246	7,087
Foreign Exchange		150	603	615	627	640	652
Net Income		1,566	1,995	3,714	5,816	8,579	11,808
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	2,701	8,387	14,697	22,749	32,946	45,942	57,768
Non-Depreciable Assets	13,400	13,400	13,400	13,400	13,400	13,400	13,400
Plant and Equipment	13,574	32,410	28,768	25,126	21,485	17,843	17,333
Total Assets	29,675	54,196	56,865	61,276	67,830	77,185	88,501
Current Liabilities	—	328	399	482	594	729	909
Long Term Debt	7,510	30,138	30,740	31,355	31,982	32,622	31,950
Total Liabilities	7,510	30,466	31,139	31,837	32,576	33,351	32,859
Equity	22,165	23,730	25,726	29,439	35,255	43,834	55,643
Initial Contribution	22,165	22,165	22,165	22,165	22,165	22,165	22,165
Retained Earnings	—	1,566	3,561	7,274	13,090	21,669	33,478
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	1,566	1,995	3,714	5,816	8,579	11,808
Plus : Depreciation	237	3,642	3,642	3,642	3,642	3,642	3,990
Plus : ForEx Losses	—	150	603	615	627	640	652
Total Operating Cash Flow	237	5,358	6,240	7,970	10,084	12,861	16,451
Plus : Equity Cash Contribution	7,815	—	—	—	—	—	—
Plus : Increase Current Liabilities	—	328	71	83	112	136	179
Plus : Loan Disbursements	7,510	22,478	—	—	—	—	—
Less : Repayment of Loans	—	0	0	0	0	0	1,324
Less : Capital Expenditure	12,861	22,478	—	—	—	—	3,480
Less: Increases Non Cash Current Assets	—	1,208	266	334	424	537	684
Net Cash Flow	2,701	4,478	6,044	7,719	9,772	12,459	11,142
Cumulative Cash Flow	2,701	7,179	13,223	20,942	30,714	43,173	54,315

Table 25G: Summary Financial Statements for Tangshan

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		13,424	16,571	20,468	25,298	31,289	38,726
Operating Expenses		5,549	6,611	7,955	9,650	11,740	14,209
Management Expenses		1,414	1,563	1,738	1,947	2,191	2,471
Depreciation		4,086	4,086	4,086	4,086	4,086	4,434
Operating Surplus		2,375	4,311	6,688	9,615	13,272	17,612
Interest Income		376	554	823	1,171	1,619	2,191
Interest Expense		1,278	2,301	2,347	2,394	2,442	2,491
Taxes		755	1,000	1,940	3,107	4,574	6,339
Foreign Exchange		84	645	657	671	684	698
Net Income		634	920	2,567	4,614	7,191	10,276
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	7,520	12,694	18,419	25,825	35,318	47,427	58,115
Non-Depreciable Assets	9,100	9,100	9,100	9,100	9,100	9,100	9,100
Plant and Equipment	14,055	37,910	33,824	29,738	25,652	21,566	20,612
Total Assets	30,675	59,704	61,344	64,664	70,070	78,093	87,828
Current Liabilities	--	370	445	541	663	811	988
Long Term Debt	4,205	32,230	32,875	33,532	34,203	34,887	34,169
Total Liabilities	4,205	32,600	33,320	34,073	34,866	35,698	35,157
Equity	26,470	27,104	28,023	30,590	35,204	42,395	52,671
Initial Contribution	26,470	26,470	26,470	26,470	26,470	26,470	26,470
Retained Earnings	--	634	1,553	4,120	8,734	15,925	26,201
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	--	634	920	2,567	4,614	7,191	10,276
Plus : Depreciation	189	4,086	4,086	4,086	4,086	4,086	4,434
Plus : ForEx Losses	--	84	645	657	671	684	698
Total Operating Cash Flow	189	4,804	5,650	7,310	9,371	11,961	15,407
Plus : Equity Cash Contribution	9,740	--	--	--	--	--	--
Plus : Increase Current Liabilities	--	370	75	96	122	148	177
Plus : Loan Disbursements	4,205	27,941	--	--	--	--	--
Less : Repayment of Loans	--	0	0	0	0	0	1,416
Less : Capital Expenditure	6,614	27,941	--	--	--	--	3,480
Less: Increases Non Cash Current Assets	--	1,211	279	347	430	533	661
Net Cash Flow	7,520	3,963	5,446	7,059	9,062	11,576	10,028
Cumulative Cash Flow	7,520	11,483	16,929	23,989	33,051	44,626	54,654

Table 25H: Summary Financial Statements for Xiao Shan

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		15,435	19,442	24,634	31,404	40,293	52,039
Operating Expenses		7,468	9,708	11,669	14,503	18,128	22,568
Management Expenses		2,599	2,910	3,207	3,584	4,033	4,559
Depreciation		5,079	5,079	5,079	5,079	5,079	5,093
Operating Surplus		289	1,745	4,679	8,239	13,052	19,819
Interest Income		338	444	612	907	1,316	1,878
Interest Expense		1,579	2,876	2,934	2,992	3,052	3,113
Taxes		509	642	1,051	2,448	4,343	6,995
Foreign Exchange		95	806	822	838	855	872
Net Income		(1,555)	(2,135)	484	2,867	6,118	10,716
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	6,758	10,833	14,717	21,235	30,206	42,502	57,574
Non-Depreciable Assets	1,839	1,839	1,839	1,839	1,839	1,839	1,839
Plant and Equipment	12,980	43,361	38,282	33,203	28,124	23,045	18,094
Total Assets	21,577	56,033	54,838	56,276	60,169	67,386	77,508
Current Liabilities	--	457	591	724	911	1,155	1,459
Long Term Debt	4,728	40,282	41,088	41,910	42,748	43,603	42,705
Total Liabilities	4,728	40,739	41,679	42,633	43,659	44,758	44,164
Equity	16,849	15,294	13,159	13,643	16,510	22,628	33,344
Initial Contribution	16,849	16,849	16,849	16,849	16,849	16,849	16,849
Retained Earnings	--	(1,555)	(3,690)	(3,206)	(339)	5,779	16,495
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	--	(1,555)	(2,135)	484	2,867	6,118	10,716
Plus : Depreciation	200	5,079	5,079	5,079	5,079	5,079	5,093
Plus : ForEx Losses	--	95	806	822	838	855	872
Total Operating Cash Flow	200	3,618	3,750	6,385	8,784	12,052	16,681
Plus : Equity Cash Contribution	9,398	--	--	--	--	--	--
Plus : Increase Current Liabilities	--	457	135	133	187	244	304
Plus : Loan Disbursements	4,728	35,460	--	--	--	--	--
Less : Repayment of Loans	--	0	0	0	0	0	1,770
Less : Capital Expenditure	7,567	35,460	--	--	--	--	143
Less: Increases Non Cash Current Assets	--	1,382	376	472	623	819	1,080
Net Cash Flow	6,758	2,693	3,509	6,046	8,349	11,477	13,992
Cumulative Cash Flow	6,758	9,451	12,960	19,006	27,354	38,831	52,824

Table 25I: Summary Financial Statements for Xintang

Income and Expense	1999	2000	2001	2002	2003	2004	2005
Operating Revenues		26,768	31,347	36,959	43,879	52,465	63,177
Operating Expenses		14,075	16,801	19,404	22,528	26,651	31,303
Management Expenses		3,380	3,746	4,113	4,531	5,041	5,605
Depreciation		7,158	7,158	7,158	7,158	7,158	7,158
Operating Surplus		2,156	3,642	6,284	9,662	13,615	19,112
Interest Income		391	577	869	1,280	1,801	2,452
Interest Expense		2,298	4,015	4,095	4,177	4,261	4,346
Taxes		883	1,034	1,448	2,817	4,448	6,677
Foreign Exchange		185	1,125	1,147	1,170	1,193	1,217
Net Income		(820)	(1,955)	464	2,779	5,515	9,324
Balance Sheet	1999	2000	2001	2002	2003	2004	2005
Current Assets	7,81	15,238	21,733	30,676	41,995	56,136	71,683
Non-Depreciable Assets	1,850	1,850	1,850	1,850	1,850	1,850	1,850
Plant and Equipment	27,808	67,440	60,283	53,125	45,967	38,810	31,652
Total Assets	37,472	84,528	83,865	85,651	89,812	96,795	105,185
Current Liabilities	—	902	1,069	1,244	1,457	1,732	2,051
Long Term Debt	9,255	56,230	57,354	58,501	59,671	60,865	59,611
Total Liabilities	9,255	57,132	58,423	59,745	61,128	62,597	61,663
Equity	28,217	27,397	25,442	25,906	28,684	34,199	43,523
Initial Contribution	28,217	28,217	28,217	28,217	28,217	28,217	28,217
Retained Earnings	—	(820)	(2,775)	(2,311)	467	5,982	15,306
Cash Flow Statement	1999	2000	2001	2002	2003	2004	2005
Net Income	—	(820)	(1,955)	464	2,779	5,515	9,324
Plus : Depreciation	235	7,158	7,158	7,158	7,158	7,158	7,158
Plus : ForEx Losses	—	185	1,125	1,147	1,170	1,193	1,217
Total Operating Cash Flow	235	6,523	6,327	8,768	11,106	13,866	17,699
Plus : Equity Cash Contribution	14,767	—	—	—	—	—	—
Plus : Increase Current Liabilities	—	902	167	175	213	275	319
Plus : Loan Disbursements	9,255	46,789	—	—	—	—	—
Less : Repayment of Loans	—	0	0	0	0	0	2,471
Less : Capital Expenditure	16,443	46,789	—	—	—	—	—
Less: Increase Non Cash Current Assets	—	2,694	464	559	689	858	1,064
Net Cash Flow	7,814	4,730	6,030	8,384	10,630	13,283	14,483
Cumulative Cash Flow	7,814	12,544	18,574	26,958	37,588	50,871	65,354

Annex 6

Procurement and Disbursement Arrangements

A. Procurement

General

1. Given the wide range of activities and agencies involved in the project, the procurement procedures would be carried out in a centrally controlled manner. The emphasis is on timely procurement actions and the scale of economy.
2. Procurement of works and goods will follow the Bank Guidelines dated January 1955 and revised in January and August 1996 and September 1997. Chinese Model Bidding Documents, published by Tsinghua University Press, dated May 1997 and, where the Model Bidding Document is not available, the Bank's Standard Bidding Documents will be used for all Bank-financed procurement.
3. Procurement of Consulting Services and the format of consultants' contracts will both be based on the Bank Guidelines for the Selection and Employment of Consultants by World Bank Borrowers dated January 1997 and revised in September 1997.
4. A Procurement Plan, providing a time table for each step of the procurement process for each package is attached to Annexes 16 and 17.

Procurement Methods

5. *Civil Works:* Development of ICDs involves civil works. Each contract is estimated to cost less than US\$ equivalent of 8 million. They are geographically scattered and small in size. They will be implemented locally by project ICDs. Because of these reasons, it is less likely to arouse interest of foreign contractors. Adequate competition is expected because of the existence of a large number of qualified contractors. Because of these factors, the advantages of NCB outweigh those of ICB, and thus NCB would be an acceptable method. The documentation for the civil work contracts will follow the NCB Model Bidding Documents for civil works for Bank-financed projects in China. NCB review process will be carried out by RMC. There will be a total of 9 contracts. Total estimated value for these contracts is US\$ 18 million equivalent.
6. *Goods:* Major equipment like container cranes and tractors with contract value estimated to cost US\$250,000 or more will be procured through ICB using the PRC's Model Bidding Document. For contracts with estimated costs below US\$250,000 which have the characteristics stated in the above para would be procured through NCB. Off-the-shelf goods like office equipment, maintenance equipment and other goods which are estimated to cost below US\$100,000 each will be procured through national shopping method (which does not exclude the procurement from foreign suppliers). The aggregate amount of procurement through shopping is expected to be US 0.8 million.
7. *Services:* Four Technical Assistance (TA) activities form part of this project. These are:
 - (i) TA for strengthening the managerial and operational capability of project ICDs, more specifically: (a) the development of business plans; (b) operational manuals; and (c) the conduct of foreign and domestic study tours. The estimated total cost of this component is US\$359,000. Within this allocation, individual foreign consultants would be recruited for the development of business plans (US\$35,000) and operational manual (US\$30,000).

(ii) TA for developing an Electronic Data Interchange (EDI) and MIS System for project ICDs, with an estimated cost of US\$199,000. CPMO has requested the Bank to allow them to select a consulting firm on a sole source basis with the following justifications.

- The proposed development of EDI/MIS was a continuation of, or an extension from the previous projects (i.e. Port & Shipping Line EDI Network Project and China Container Transport Experiment Project, both undertaken by the Chinese Government) in which the Waterborne Transport Institute (WTI) was a major system designer. There is, therefore, a clear advantage of using the same consulting firm for the development of MIS/EDI in terms of cost and time to be spent for the development.
- EDI system to be employed by project ICDs should be compatible with that of the Port & Shipping Line EDI Network (PSL-EDI). The use of the consultant who was involved in the development of the latter system would enable to ensure the above requirement to be met.
- A major part of the development efforts would be on the development of a system accommodating China's specific requirements including the language requirement. This requires the use of Chinese consultants. CPMO stated that the WTI is only a Chinese institution which has adequate experience in this field.

In consideration of the above factors, the proposed selection method of a consultant is justifiable in light of economy and efficiency principle.

(iii) TA for establishing an arm's length relationship between port authority and container terminals operators, and for instituting a level playing field for intra-port competition between two container terminal operators, with an estimated cost of US\$60,000. Among them, US\$ 30,000 would be used for the recruitment of a foreign individual consultant.

(iv) TA for enhancing the productivity of container berths at Tianjin Port with an estimated cost of US\$52,000. Among them, US\$27,000 would be used for the recruitment of an individual foreign consultant.

Before implementing the TA program, CPMO will prepare a TA implementation plan and send to the Bank for its approval. Foreign study tours, workshops and the recruitment of consultants will be carried out in accordance with this TA implementation plan.

8. *Advance contracting and retroactive financing:* Project ICDs are planning to procure most equipment in the first year. For this purpose, civil works should be completed by the time of equipment delivery. It is also planning to start technical assistance program in late 1998 because of the importance of training the staff before the ICD operations start. Therefore, 40% of civil works and 40% of technical assistance would be financed on a retroactive financing basis. The estimated amount is US\$5.6 million, which is 7.9 % of the loan amount. This would be applied to those civil works and TA to be procured after October 1, 1998

9. *Prior Review Thresholds:* Table B indicates the thresholds for prior reviews for ICB, NCB and shopping. The review process would cover about 97 percent (US\$ 69 million) of Bank-financed total contract values, which far exceeds the minimum requirement of 80% for the percentage of prior review. Selected post review of awarded contracts below the prior review threshold will be carried out of one in every 4 contracts.

B. Disbursement

Special Accounts

10. To facilitate disbursements under the project, four Special Accounts (SAs) would be established in commercial banks located in Hebei Province, Zhejiang Province, Tianjin Municipality and Inner Mongolia Autonomous Region. Initial deposits, approximately equal to an estimated four months' expenditures, would be made. Applications for replenishment of the SAs would be submitted monthly or when the amounts withdrawn from the SAs are equal to 50% of the initial deposit, whichever comes sooner.

Review and approval process

11. For those payments amounting to larger than 25% of the initial deposit of each Special Account, direct payment to suppliers would be made from the Loan Account in the World Bank. To make this payment, disbursement documents would be prepared by ICDs, and sent to the Municipality Finance Bureau (MFB). The documents would be reviewed and approved by MFB, with the countersignature of the Municipality Project Leading Group (MPLG). Then, the documents will be sent to Provincial Finance Bureau (PFB), and be reviewed and approved by them, with countersignature of Provincial Project Management Office (PPMO). For processing, PFB will send disbursement application to the World Bank (WB). The supplier will be paid from the Loan Account in the WB.

12. To make payment from the Special Accounts in PFBs, disbursement documents would be prepared by ICD, and sent to MFB. The documents would be reviewed and approved by MFB, with countersignature of MPLG. It would be then sent to PFB, and would be reviewed and approved by them, with a countersign of PPMO. The supplier will be paid from the Special Account of PFB. After that, PFB will send the World Bank the application for replenishment for the Special Account.

13. To claim reimbursement to an ICD operator which has paid to a supplier from its own resources, disbursement documents would be prepared by the ICD operator, and sent to MFB. The documents would be reviewed and approved by MFB with the countersignature of MLG. It would be then sent to PFB, and would be reviewed and approved by them. After PFB's review, the funds will be appropriated to the enterprise from the special fund of MFB.

14. MOF and CPMO will formulate detailed rules for disbursement by the end of March 1999.

Percentage of Disbursement

15. The proceeds of the Loan would be disbursed against eligible expenditures as follows: (a) civil works: 49 percent of expenditures; (b) equipment and materials: 100 percent of foreign expenditures, 100 percent of local expenditures (ex-factory), and 75 percent of other items procured locally; (c) and 100 percent of expenditures for technical assistance and training.

16. For the contracts for: (a) civil works valued at less than \$1,000,000; (b) goods costing less than \$250,000; (c) consulting services costing less than \$100,000 for firms and \$50,000 equivalent for individuals, and (d) all training, disbursement will be made against Statement of Expenditure (SOE) withdrawal procedures. Supporting documentation for SOEs would need to be maintained at CPMO for TA, at PPMO for goods, at ICDs for civil works.

Accounts, Audits and reporting

17. Project enterprises will maintain complete project accounts, while MFBs and PFBs will keep simpler accounts which record fund flow. These offices will be staffed by qualified accounting staff. Accounts and documentation to support the Statement of Expenditure (SOEs) will be maintained and readily available for review by visiting Bank missions. Project accounts at each level would be audited by Local Audit Administrations, and audit reports will be sent to higher level PMOs. CPMO will compile all audited project accounts and audit reports, and send them to the Bank. In addition, project enterprises will prepare enterprise financial statements and get them audited by local Audit Administrations. These audited financial statements would be submitted to higher PMOs and sent to the CPMO. CPMO will then send them to MOF and the Bank for their review within six month of the end of the fiscal year.

Attached tables:

- Procurement methods (Table A)
- Prior review thresholds (Table B)
- Allocation of loan proceeds (Table C)

Annex 6, Table A: Project Costs by Procurement Arrangements
(in US\$ thousand equivalent)

Expenditure Category	Procurement Method				Total Costs (including Contingencies)
	ICB	NCB	Other	NBF	
ICD Component					
1. Civil Works		19,072 (9,345)			19,072 (9,345)
2. Goods	22,528 (22,528)	74 (72)	253 (253)	40 (0)	22,895 (22,854)
3. Services			569 (569)		569 (569)
4. Other Investments				42,670 (0)	42,670 (0)
Port Component					
1. Civil Works				8,583 (0)	8,583 (0)
2. Goods	36,888 (36,888)				36,888 (36,888)
3. Services			179 (179)		179 (179)
4. Other investments				27,649 (0)	27,649 (0)
Total	59,416 (59,416)	19,146 (9,418)	1,002 (1,002)	78,942 (0)	158,505 (69,835)

- 1) NBF: Not Bank-Financed
- 2) Other includes procurement of goods through national/international shopping and that of consultant services
- 3) Figures in parentheses are the amounts to be financed by the Bank loan
- 4) The above does not include the lending for the front-end fee
- 5) The above figures are rounded up.
- 6) The above figures do not include taxes and duties.

Annex 6, Table A1: Consultant Selection Arrangements (optional)
(in US\$ million equivalent)

Consultant Services Expenditure Category	Selection Method							Total Cost (excluding contingencies)
	QCBS	QBS	SFB	LCS	CQ	Other	N.B.F.	
A. Firms						0.199 (0.199)		0.199 (0.199)
B. Individuals	0.122 (0.122)							0.122 (0.122)
Total	0.122 (0.150)					0.199 (0.199)		0.321 (0.321)

Note: QCBS = Quality- and Cost-Based Selection

QBS = Quality-based Selection

SFB = Selection under a Fixed Budget

LCS = Least-Cost Selection

CQ = Selection Based on Consultants' Qualifications

Other = Selection of individual consultants (per Section V of Consultants Guidelines), Commercial Practices, etc.

N.B.F. = Not Bank-financed.

Figures in parenthesis are the amounts to be financed by the Bank loan.

Annex 6, Table B: Thresholds for Procurement Methods and Prior Review^{1/}

Expenditure Category	Contract Value (Threshold) US \$	Procurement Method	Contracts Subject to Prior Review / Estimated Total Value Subject to Prior Review (US \$ millions)
1. Works	< \$8,000,000 /a	NCB	7 contracts subject to prior review /\$17 million
2. Goods	> \$250,000 /b	ICB	12 contract subject to prior review/\$59 million
	< \$250,000	NCB	No contracts subject to prior review
	< \$100,000		10 contracts subject to prior review/\$0.8 million
3. Services	> \$100,000 /c for firms	Single-source procurement	1 contract /\$0.199 million
	< \$100,000 for firms	QCBS/other	
	> \$50,000 /d for individuals	QCBS	
	< \$50,000 for individuals	QCBS/other	4 contracts for QCBS amounting to US\$0.122 million.
Total value of contracts subject to prior review:			US\$68 million
Total value of items financed by the Bank subject to prior review as a percentage of total Bank loan for the project			97%

Threshold for prior review

- /a Prior review above \$1,000,000 for civil works
- /b Prior review above \$250,000 for goods
- /c Prior review above \$100,000 for firms
- /d Prior review above \$50,000 for individuals

^{1/} Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

Annex 6, Table C: Allocation of Loan Proceeds

Expenditure Category	Amount in US\$ thousand	Financing Percentage
ICD Component:		
Goods	22,565	100% / 75%
Works	8,611	49%
Services	559	100%
Unallocated	1,033	
Sub-total	32,768	
Port Component:		
Goods	36,404	100% / 75%
Works	0	49%
Services	177	100%
Unallocated	487	
Sub-total	37,068	
Front-end Fee	710	
Total	70,545	

* Total amount of the loan was determined based on the rounded-up figure of the above table.

Annex 7
Project Processing Budget and Schedule

	Planned (At final PCD stage)	Actual
A. Project Budget (US\$000)	US\$385	US\$440
B. Project Schedule:		
Time taken to prepare the project (months)	11 months	14 months
First Bank mission (identification)	05/15/1997	05/15/1997
Appraisal mission departure	04/15/1998	07/11/1998
Negotiations	08/15/1998	01/25/1999
Planned Date of Effectiveness	01/15/1999	06/18/1999
Prepared by:	State Economic and Trade Commission, Tianjin Municipality, Hebei Province, Inner Mongolia Autonomous Region, Zhejiang Province	
Preparation assistance:	PHRD fund and CTF	
Bank staff who worked on the project included:		
Name	Specialty	
Shunso Tsukada Richard Scurfield Robin Carruthers Ronald Kopicki Toshiro Tsutsumi Hoi-Chan Nguyen Anil Somani Chaohua Zhang John Arnold Gopalkrishnan Yingwei Wu Hyung Min Kim Jinxue Chu Juemin Chen/E Liu Doris Pappas Boonsri Kim	Task managing and policy reform Coordination with Chinese counterparts Economic assessment Inland container depots Port Legal Environmental assessment Resettlement Financial analyses Procurement (ICB) Procurement (NCB) Disbursement Financial management system Coordination with SETC/MOF/SDPC Task assistant Task assistant	

Annex 8 **Documents in the Project File***

A. Project Implementation Plan (PIP)

- PIP for the Container Transport Project, May 30, 1998

B. Bank Staff Assessments

- Project Concept Document (PCD) and Minutes of the Review Meeting, September 1997
- Current Status of the Implementation of the Recommendations of the Sector Study
- Financial Analysis for Project ICDs and Tianjin Port

C. Other

- Investigation Report of Resettlement, May 15, 1998
- Environmental Impact Assessment Report, August 15. 1998
- Feasibility Study Reports for 10 ICDs, April 1998
- Feasibility Study Report for Tianjin Port Container Terminal, May 1998
- Manual for financial management for ICDs
- Letter of TPA indicating their plan for the corporatization of THCC through public offer of its stocks
- Registries for the establishment of 10 ICDs as limited liability companies
- Letters of intent issued by Gateway Office of three provincial governments, confirming the provision of cross border inspections for individual ICDs
- Letter confirming the arrangement for securing freight forwarding services for each ICD

* including electronic files.

Annex 9
Statement of Loans and Credits
Status of Bank Group Operations in China
Operations Portfolio
As of 15-Feb-99

Project ID	Fiscal Year	Borrower	Purpose	Original Amount in US\$ Millions				Difference Between expected and actual disbursements a/		
				IBRD	IDA	Cancellations	Undisbursed	Original	Frm	Rev'd
Number of Closed Projects: 106										
<i>Active Projects</i>										
CN-PE-49665	1999	PRC	ANNING VALLEY AG. DEV	90.00	30.00	0.00	119.94	0.00	0.00	0.00
CN-PE-50036	1999	PEOPLE'S REPUBLIC OF CHIN	ANHUI PROVINCIAL HWY	200.00	0.00	0.00	200.00	2.49	0.00	0.00
CN-PE-63123	1999	PRC	YANGTZE FLOOD EMERG	40.00	40.00	0.00	80.00	0.00	0.00	0.00
CN-PE-3539	1998	PRC	SUST COAST RES DEV	100.00	0.00	0.00	100.00	2.92	0.00	0.00
CN-PE-3566	1998	PRC	BASIC HEALTH	0.00	85.00	0.00	86.90	1.15	0.00	0.00
CN-PE-35698	1998	PRC	HUNAN POWER DEVELOP.	300.00	0.00	0.00	300.00	3.00	0.00	0.00
CN-PE-3591	1998	PRC	STATE FARMS COMMERC	150.00	0.00	0.00	110.48	-28.42	0.00	0.00
CN-PE-3606	1998	GOC	ENERGY CONSERVATION	63.00	0.00	0.00	63.00	2.24	0.00	0.00
CN-PE-3614	1998	PEOPLE'S REPUBLIC OF CHIN	GUANGZ. CITY CRT.TRP	200.00	0.00	0.00	200.00	10.59	0.00	0.00
CN-PE-3619	1998	MINISTRY OF FINANCE	2ND INLAND WATERWAYS	123.00	0.00	0.00	123.00	15.50	0.00	0.00
CN-PE-36414	1998	CHINA	GUANGXI URBAN ENV.	72.00	20.00	0.00	89.35	-1.53	0.00	0.00
CN-PE-36949	1998	PEOPLES REPUBLIC OF CHINA	NAT. HWY 3-HUBEI	250.00	0.00	0.00	242.00	8.67	0.00	0.00
CN-PE-40185	1998	PRC	SHANDONG ENVIRONMENT	95.00	0.00	0.00	92.00	17.65	0.00	0.00
CN-PE-45788	1998	PEOPLE'S REPUBLIC OF CHIN	TRI-PROVINCIAL HWY	230.00	0.00	0.00	230.00	32.04	0.00	0.00
CN-PE-46563	1998	PRC	TARIM BASIN II	90.00	60.00	0.00	152.40	11.69	0.00	0.00
CN-PE-46952	1998	PRC	FOREST. DEV. POOR AR	100.00	100.00	0.00	203.96	7.17	14.34	0.00
CN-PE-49700	1998	PRC	IAIL-2	300.00	0.00	0.00	280.00	-4.70	0.00	0.00
CN-PE-51736	1998	GOC	E. CHINA/JIANGSU PWR	250.00	0.00	0.00	250.00	71.86	0.00	0.00
CN-PE-56491	1998	PRC	HEBEI EARTHQUAKE	0.00	28.40	0.00	21.01	-2.82	0.00	0.00
CN-PE-34081	1997	PRC	XIAOLANGDI MULTI. II	430.00	0.00	0.00	364.40	86.07	0.00	0.00
CN-PE-3590	1997	PRC	QINBA MTS. POTOV RED	30.00	150.00	0.00	157.27	22.39	0.00	0.00
CN-PE-3635	1997	PRC	VOC. ED. REFORM PROJ	10.00	20.00	0.00	17.37	1.95	0.00	0.00
CN-PE-3637	1997	PRC	NATL RUR WATER III	0.00	70.00	0.00	65.42	8.89	0.00	0.00
CN-PE-36405	1997	PRC	WANJIAZHAI WATER TRA	400.00	0.00	0.00	328.66	-3.01	0.00	0.00
CN-PE-3643	1997	PRC	XINJIANG HIGHWAYS II	300.00	0.00	0.00	237.28	54.28	0.00	0.00
CN-PE-3650	1997	GOC	TUOKETUO POWER/INNER	400.00	0.00	0.00	398.00	118.12	0.00	0.00
CN-PE-3654	1997	PRC	HUNAN/GUANG HWY2-NH2	400.00	0.00	0.00	350.40	80.39	0.00	0.00
CN-PE-36952	1997	PRC	BASIC ED. IV	0.00	85.00	0.00	50.51	-21.08	0.00	0.00
CN-PE-38988	1997	PRC	HEILONGJIANG ADP	120.00	0.00	0.00	97.02	7.74	0.00	0.00
CN-PE-44485	1997	PRC	SHANGHAI WAGAOQIAO	400.00	0.00	0.00	400.00	52.69	0.00	0.00
CN-PE-34618	1996	PRC	LABOR MARKET DEV.	10.00	20.00	0.00	24.46	21.16	0.00	0.00
CN-PE-3507	1996	GOC	ERTAN HYDRO II	400.00	0.00	0.00	31.51	-22.40	0.00	0.00
CN-PE-3563	1996	PRC	ANIMAL FEED	150.00	0.00	0.00	139.57	104.20	12.92	0.00
CN-PE-3569	1996	P.R.C.	SHANGHAI-ZHEJIANG HI	260.00	0.00	7.75	110.73	23.83	13.17	0.00
CN-PE-3589	1996	PRC	DISEASE PREVENTION	0.00	100.00	0.00	71.22	55.07	0.00	0.00
CN-PE-3594	1996	PRC	GANSU HEXI CORRIDOR	60.00	90.00	0.00	129.18	24.33	0.00	0.00
CN-PE-3599	1996	YUNNAN PROV. GOV.	YUNNAN ENVIRONMENT	125.00	25.00	0.00	141.29	14.24	0.00	0.00
CN-PE-3602	1996	PRC	HUBEI URBAN ENV. PRO	125.00	25.00	0.00	128.27	75.00	0.00	0.00
CN-PE-3638	1996	PRC	SEEDS SECTOR COMMER.	80.00	20.00	0.00	84.49	28.54	0.00	0.00
CN-PE-3646	1996	PRC	CHONGQING IND POL CT	170.00	0.00	0.00	169.38	95.13	0.00	0.00
CN-PE-3648	1996	SHANGHAI MUN. GOVT	SECOND SHANGHAI SEWE	250.00	0.00	0.00	165.68	73.87	0.00	0.00
CN-PE-3649	1996	CHINA	SHANXI POVERTY ALLEV	0.00	100.00	0.00	35.64	-12.39	0.00	0.00
CN-PE-3652	1996	PRC	2ND SHAANXI PROV HWY	210.00	0.00	0.00	148.70	54.69	0.00	0.00
CN-PE-36950	1996	PRC	BASIC ED. POOR III	0.00	100.00	0.00	14.43	-23.65	0.00	0.00

Project ID	Fiscal Year	Borrower	Purpose	Original Amount in US\$ Millions				Difference Between expected and actual disbursements a/	
				IBRD	IDA	Cancellations	Undisbursed	Original	Frm Rev'd
CN-PE-40513	1996	PRC	2ND HENAN PROV HWY	210.00	0.00	0.00	181.05	51.72	0.00
CN-PE-3493	1995	PRC	INLAND WATERWAYS	420.00	0.00	0.00	286.07	-4.79	0.00
CN-PE-3571	1995	PRC	RAILWAYS VII	400.00	0.00	0.00	384.39	195.05	0.00
CN-PE-3585	1995	GOC	SHENYANG IND. REFORM	175.00	0.00	0.00	100.80	47.20	0.00
CN-PE-3596	1995	PRC	YANTZEE BASIN WATER	100.00	110.00	0.00	41.11	-12.08	0.00
CN-PE-3598	1995	PRC	LIAONING ENVIRONMENT	110.00	0.00	0.00	70.21	55.69	0.00
CN-PE-3600	1995	PRC	TECHNOLOGY DEVELOPMEN	200.00	0.00	0.00	132.94	41.52	0.00
CN-PE-3603	1995	PRC	ENT. HOUSING SOC. SE	275.00	75.00	20.00	204.50	153.52	4.17
CN-PE-36041	1995	MOF	FISCAL TAX REF. &	50.00	25.00	0.00	66.82	41.27	0.00
CN-PE-3612	1995	PRC	XINJIANG HIGHWAY I	150.00	0.00	0.00	55.43	43.43	0.00
CN-PE-3634	1995	PRC	MATERNAL CHILD HEALTH	0.00	90.00	0.00	22.07	9.68	0.00
CN-PE-3636	1995	PRC	BASIC EDUC IN POOR &	0.00	100.00	0.00	3.95	-2.68	0.00
CN-PE-3639	1995	PRC	SOUTHWEST POV. REDUC	95.00	200.00	0.00	151.15	29.64	0.00
CN-PE-3642	1995	PRC	ZHEJIANG POWER DEV'T	400.00	0.00	0.00	147.91	-47.89	0.00
CN-PE-3647	1995	PRC	ECONOMIC LAW REFORM	0.00	10.00	0.00	5.82	5.46	0.00
CN-PE-36947	1995	GOC	SICHUAN TRANSMISSION	270.00	0.00	0.00	141.78	126.75	83.41
CN-PE-37156	1995	PRC	IODINE DEF. DISORDER	7.00	20.00	7.00	2.14	11.74	-.71
CN-PE-3502	1994	MOH	RUR HEALTH MANPOWER	0.00	110.00	0.00	31.98	23.15	0.00
CN-PE-3504	1994	PRC	HEBEI/HENAN NATIONAL	380.00	0.00	0.00	48.65	8.30	0.00
CN-PE-3540	1994	PRC	LOESS PLATEAU	0.00	150.00	0.00	31.02	-24.41	0.00
CN-PE-3557	1994	PRC	FOREST RESOURCE DEV	0.00	200.00	0.00	47.66	15.52	-29.84
CN-PE-3562	1994	PRC	XIAOLANGDI MULTIPURPOSE	460.00	0.00	0.00	.83	.83	0.00
CN-PE-3586	1994	PRC	SHANGHAI ENVIRONMENT	160.00	0.00	0.00	72.20	65.65	0.00
CN-PE-3593	1994	PRC	SONGLIAO PLAIN ADP	0.00	205.00	0.00	26.58	-15.75	0.00
CN-PE-3595	1994	PRC	RED SOILS II DEVELOP	0.00	150.00	0.00	41.63	14.11	0.00
CN-PE-3609	1994	GOC	SICHUAN GAS DEV & CONSERVATION	255.00	0.00	0.00	129.77	74.28	0.00
CN-PE-3622	1994	SHANGHAI MUNICIPAL GOVT	SHANGHAI MTP II	150.00	0.00	0.00	7.48	7.49	0.00
CN-PE-3626	1994	GOC	FUJIAN PROV HIGHWAY	140.00	0.00	0.00	58.63	31.29	2.79
CN-PE-3633	1994	GOVERNMENT OF PRC	TELECOMMUNICATIONS	250.00	0.00	30.00	19.55	49.55	0.00
CN-PE-3641	1994	PRC	YANGZHOU THERMAL POWER	350.00	0.00	0.00	75.98	56.15	0.00
CN-PE-3644	1994	PRC	XIAOLANGDI RESETTLEMENT	0.00	110.00	0.00	26.36	6.37	0.00
CN-PE-3473	1993	P.R.C.	ZHEJIANG MULTICITIES	0.00	110.00	0.00	29.49	28.06	0.00
CN-PE-3512	1993	GOVT OF PEOPLES REP. OF C	SHANGHAI PORT REST.	150.00	0.00	25.74	3.88	27.77	2.20
CN-PE-3518	1993	PRC	GUANGDONG PROV. TRANSPORT	240.00	0.00	0.00	2.08	-2.94	0.00
CN-PE-3533	1993	PRC	TIANJIN IND. II	150.00	0.00	16.00	42.17	47.65	8.82
CN-PE-3559	1993	PRC	AGRIC. SUPPORT SERVI	0.00	115.00	0.00	10.74	-2.16	0.00
CN-PE-3561	1993	PRC	SICHUAN ADP	0.00	147.00	0.00	5.66	0.00	0.00
CN-PE-3567	1993	PRC	EFFECTIVE TEACHING S	0.00	100.00	0.00	22.81	20.72	20.78
CN-PE-3570	1993	PRC	RAILWAY VI	420.00	0.00	0.00	94.61	92.29	0.00
CN-PE-3580	1993	PRC	SO. JIANGSU ENVIRON. PROTECT.	250.00	0.00	0.00	4.15	-1.87	0.00
CN-PE-3581	1993	PRC	HENAN PROV. TRANSPORT	120.00	0.00	0.00	10.78	10.79	0.00
CN-PE-3592	1993	PRC	REF. INST'L. & PREINVEST(CRISP)	0.00	50.00	0.00	20.19	19.61	0.00
CN-PE-3597	1993	PRC	TAIHU BASIN FLOOD CO	100.00	100.00	0.00	47.56	43.17	0.00
CN-PE-3616	1993	PRC	TIANHUANGPING HYDRO	300.00	0.00	0.00	66.70	47.99	0.00
CN-PE-3623	1993	PRC	FINANCIAL SECTOR T.A	0.00	60.00	0.00	21.07	16.02	0.00
CN-PE-3627	1993	PRC	GRAIN DISTRIBUTION P	325.00	165.00	0.00	327.87	321.30	54.64
CN-PE-3632	1993	ROC	ENVIRONMENT TECH ASS	0.00	50.00	0.00	11.05	11.06	-1.15
CN-PE-3503	1992		ZOUXIAN THERMAL POWE	310.00	0.00	0.00	7.79	7.80	0.00
CN-PE-3534	1992	PRC	ZHEJIANG PROV TRANSP	220.00	0.00	0.00	20.24	20.25	8.55
CN-PE-3564	1992	BEIJING MUNICIPALITY	BEIJING ENVIRONMENT	45.00	80.00	0.00	25.79	20.42	2.84
CN-PE-3565	1992		SHANGHAI METRO TRANS	0.00	60.00	0.00	3.89	.68	0.00
CN-PE-3568	1992	R.O.C.	TIANJIN URB DEV & EN	0.00	100.00	0.00	18.90	15.24	-6.07
CN-PE-3624	1992	MIN. OF PUBL. HEALTH	INFECTIOUS DISEASES	0.00	129.60	0.00	34.15	28.47	28.43
Total				14,620.00	3,990.00	106.49	10,252.95	2,899.63	220.29

	Active Projects	Closed Projects	Total
Total Disbursed (IBRD and IDA):	8,256.18	12,525.26	20,781.44
of which has been repaid:	64.81	2,473.13	2,537.94
Total now held by IBRD and IDA:	18,438.66	9,692.71	28,131.37
Amount sold :	0.00	0.00	0.00
Of which repaid :	0.00	0.00	0.00
Total Undisbursed :	10,252.95	28.86	10,281.81

a/ Intended disbursements to date minus actual disbursements to date as projected at appraisal.

Note: Disbursement data is updated at the end of the first week of the month and is currently as of 31-Jan-99.

Annex 10

China at a glance

1/28/99

POVERTY and SOCIAL		1997	East Asia & Pacific	Lower-middle-income	Development diamond*
		China			
1997.					
Population, mid-year (millions)		1,227.2	1,753	2,282	
GNP per capita (Atlas method, US\$)		880	970	1,230	
GNP (Atlas method, US\$ billions)		1,055.4	1,707	2,818	
Average annual growth, 1991-97					
Population (%)		1.1	1.3	1.2	
Labor force (%)		1.1	1.4	1.3	
Most recent estimate (latest year available, 1991-97)					
Poverty (% of population below national poverty line)		7	—	—	
Urban population (% of total population)		32	32	42	
Life expectancy at birth (years)		70	68	69	
Infant mortality (per 1,000 live births)		32	38	36	
Child malnutrition (% of children under 5)		16	16	—	
Access to safe water (% of population)		90	84	84	
Illiteracy (% of population age 15+)		19	17	19	
Gross primary enrollment (% of school-age population)		120	118	114	
Male		121	120	118	
Female		120	119	113	
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1976	1986	1996	1997	Economic ratios*
GDP (US\$ billions)	151.6	295.7	816.5	902.0	
Gross domestic investment/GDP	27.9	37.7	39.6	38.2	Trade
Exports of goods and services/GDP	5.0	12.2	21.0	23.0	
Gross domestic savings/GDP	28.5	35.2	41.7	42.7	
Gross national savings/GDP	28.5	35.3	40.4	41.4	
Current account balance/GDP	0.2	-2.5	0.9	3.2	Domestic Savings
Interest payments/GDP	—	0.2	0.6	0.6	Investment
Total debt/GDP	—	8.0	15.8	16.3	
Total debt service/exports	—	9.6	8.7	8.6	
Present value of debt/GDP	—	—	—	14.9	
Present value of debt/exports	—	—	—	62.7	
	1976-86	1987-97	1996	1997	Indebtedness
(average annual growth)					
GDP	9.3	10.1	9.6	8.8	— China
GNP per capita	8.3	8.6	8.7	7.4	— Lower-middle-income group
Exports of goods and services	16.8	16.6	5.6	27.6	
STRUCTURE of the ECONOMY					
	1976	1986	1996	1997	Growth rates of output and investment (%)
(% of GDP)					
Agriculture	32.8	27.1	20.4	18.7	
Industry	45.4	44.0	49.5	49.2	
Manufacturing	29.5	35.5	37.8	37.3	
Services	21.7	28.9	30.1	32.1	
Private consumption	64.0	51.4	46.7	45.7	— GDI
General government consumption	7.5	13.4	11.6	11.6	— GDP
Imports of goods and services	4.5	14.7	18.9	18.5	
	1976-86	1987-97	1996	1997	Growth rates of exports and imports (%)
(average annual growth)					
Agriculture	6.0	4.4	5.1	3.5	
Industry	11.0	13.8	12.1	10.8	
Manufacturing	12.8	13.3	11.6	9.9	
Services	12.0	8.7	7.9	8.3	
Private consumption	9.3	8.8	11.1	6.2	
General government consumption	9.4	9.9	9.5	8.2	
Gross domestic investment	10.8	11.2	8.2	5.6	
Imports of goods and services	22.5	12.8	5.9	13.1	
Gross national product	9.8	9.9	9.8	8.5	

Note: 1997 data are preliminary estimates.

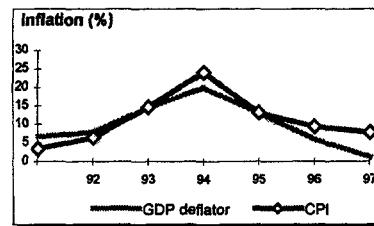
This table was produced from the Development Economics central database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

China

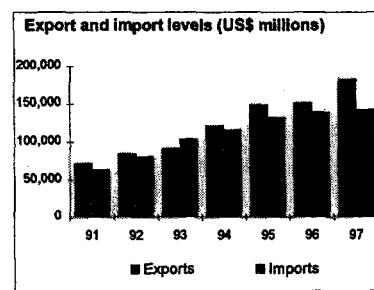
PRICES and GOVERNMENT FINANCE

	1976	1986	1996	1997
Domestic prices (% change)				
Consumer prices	..	6.5	9.4	7.9
Implicit GDP deflator	4.0	4.6	5.9	1.2
Government finance (% of GDP, includes current grants)				
Current revenue	..	24.0	11.4	12.0
Current budget balance	..	5.6	0.6	0.6
Overall surplus/deficit	..	-1.8	-1.5	-1.5



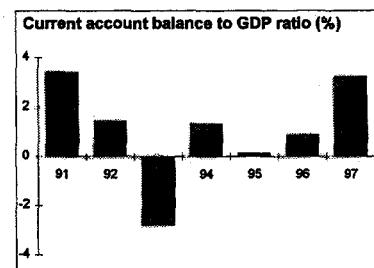
TRADE

	1976	1986	1996	1997
(US\$ millions)				
Total exports (fob)	..	30,942	151,066	182,696
Food	..	4,448	10,232	11,054
Fuel	..	3,683	5,929	6,987
Manufactures	..	19,670	129,141	158,767
Total imports (cif)	..	42,904	138,838	142,361
Food	..	2,002	7,866	6,308
Fuel and energy	..	504	6,877	10,306
Capital goods	..	20,415	59,610	57,930
Export price index (1995=100)	..	66
Import price index (1995=100)	..	69
Terms of trade (1995=100)	..	96



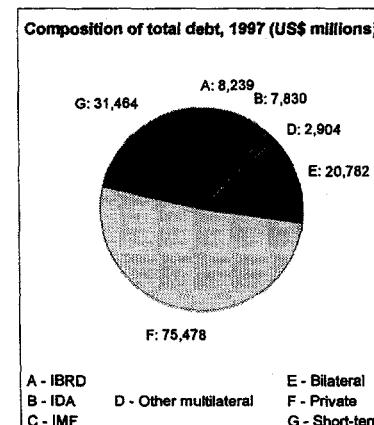
BALANCE of PAYMENTS

	1976	1986	1996	1997
(US\$ millions)				
Exports of goods and services	7,383	29,583	171,700	207,253
Imports of goods and services	7,125	37,472	154,100	166,755
Resource balance	258	-7,889	17,600	40,498
Net income	0	176	-12,370	-15,900
Net current transfers	0	255	1,922	4,660
Current account balance	258	-7,458	7,152	29,258
Financing items (net)	..	5,410	28,248	6,599
Changes in net reserves	..	2,048	-35,400	-35,857
Memo:				
Reserves including gold (US\$ millions)	..	16,417	111,728	146,448
Conversion rate (DEC, local/US\$)	1.9	3.5	8.3	8.3



EXTERNAL DEBT and RESOURCE FLOWS

	1976	1986	1996	1997
(US\$ millions)				
Total debt outstanding and disbursed	..	23,719	128,817	146,697
IBRD	..	965	7,616	8,239
IDA	..	774	7,579	7,830
Total debt service	..	2,974	15,756	18,445
IBRD	..	66	840	858
IDA	..	8	73	81
Composition of net resource flows				
Official grants	..	155	249	228
Official creditors	..	1,165	4,401	4,315
Private creditors	..	3,693	6,454	8,134
Foreign direct investment	..	1,875	40,180	44,236
Portfolio equity	..	0	3,466	8,457
World Bank program				
Commitments	..	1,120	1,900	2,425
Disbursements	..	607	2,097	2,275
Principal repayments	..	0	364	377
Net flows	..	607	1,734	1,898
Interest payments	..	75	549	562
Net transfers	..	532	1,185	1,335



Note: This table was produced from the Development Economics central database.

1/28/99

Annex 11

Action Plan for Facilitating Inland Movement of Seaborne Containers

Policy Goals	Actions and Steps	Time Frame	Agency Responsible
1. Introduce intra-port competition.	1) Conclude a joint venture (JV) agreement with foreign investors to convert Oriental Container Company into a joint venture. 2) Establish a joint venture with its registration with State Business Administration Bureau and Tax Bureau. 3) Obtain an operating license from MOC 4) Make a decision to corporatize THCC through public offer in the stock market. 5) Obtain endorsement of Tianjin Municipality /a 6) Obtain an approval of SSC /a 7) Obtain an approval of a relevant stock exchange /a 8) Complete the preparation work to issue the stock at the market /a 9) Offer THCC's stock in the market(s)	01/1997 03/1997 10/1998 05/1998 06/1999 05/2000 09/2000 11/2000 At a good market condition	TPA TPA TPA TPA TPA TPA TPA TPA TPA
2. Initiate a study for enhancing berth utilization and user orientation.	1) Establish a study team 2) Prepare TOR and send it to the Bank for its review 3) Prepare and issue Invitation for the Proposal 4) Select a consultant and get contract signed 5) Develop a strategy for enhancing berth productivity and user orientation 6) Undertake actions to implement the recommendations	01/1999 01/1999 03/1999 05/1999 12/1999 01/2000	TPA TPA TPA TPA TPA TPA
3. Develop plans for private sector participation	1) Receive training for the need for and utility of Business Plans for ICD operations 2) Develop the first Business Plans, including capital requirements, for each ICD. 3) Develop updated Business Plans with particular emphasis on strategies for the future capital mobilization, including the role of the private sector. 4) Examine strategies for the future capital mobilization strategies, in a review meeting including the representatives of the World Bank. 5) Based on the results of the review meeting, formulate plans for private sector participation for those ICDs with good financial performance. 6) Implement the above plans where recommended.	11/1998 11/1999 03/2002 05/2002 06/2002 01/2003	ICDs ICDs ICSs CPMO CPMO CPMO
4. Remove the practices of imposing additional permits and extra charges for the carriage of seaborne containers.	1) Remove these restrictions except for four provinces (Zhejiang, Hubei, Jiangsu and Hunan). 2) Promulgate the Highway Law to declassify seaborne containers from heavy-duty cargoes, giving no excuse for these provinces to impose these extra restrictions. 3) Issue a detailed regulation necessary for the implementation of this new rule set out by the Highway Law.	12/1996 07/1997 06/1999	MOC MOC MOC
5. Make customs clearance available at project ICDs.	1) Secure the issuance of a letter of intent by provincial gateway offices to project ICDs with regard to the provision of customs clearance services as soon as ICD facilities are operationalized. 2) Equip ICDs with inland gateways' functions.	09/1998 01/2000	PPMO PPMO
6. Initiate a pilot program at Xintang ICD to lower the sampling percentage of customs inspection.	1) Start semi-annual reporting of the sampling percentage to CPMO and to the Bank 2) Reduce the sampling percentage to 5% (which would not be applied to exceptional items such as drugs, weapon and other items necessary to check due to considerations of the public security and national interest) 3) Assess the results of the pilot program at Xintang ICD, and develop recommendation for the broader application.	06/2000 12/2001 01/2002	PPMO PPMO CPMO PPMO

Notes: /a Those actions are subject to the approval of relevant authorities

/b Abbreviations: TPA: Tianjin Port Authority; THCC: Tianjin Harbor Container Companies; MOC: Ministry of Communications; CGA: Customs General Administration; CPMO: Central Project Management Office; PPMO: Provincial Project Management Office.

Annex 12

Selection Process and Eligibility Criteria for ICDs

1. Following SETC's policy initiative, a number of municipalities have decided to promote the development of ICDs, and 22 have initiated the selection process. Selection process was carried out in a transparent manner as described below:

- Public announcement was made to advise potential investors of the investment opportunities with possible access to Bank financing.
- Pre-qualified firms were selected based on related business experience and quality of management. In most cases three companies were prequalified. Subsequent to the initial announcement of prequalification criteria, subsidiaries of Sinotrans and COSCO were disqualified based on the likely consequence of increased market concentration and control;
- Proposals received from pre-qualified companies were evaluated based on the following criteria: a) management experience and capacity ; b) financial strength; c) location of site controlled or proposed for development; d) willingness to undertake corporatization reforms by forming a new limited liability, joint stock company.
- Municipalities reviewed the proposals of all offers and simultaneously conducted investigations into the merits and strengths of each company before making a final selection;
- In each case municipalities selected a lead strategic investor to form a corporation which would become the local beneficiary of the project.
- Municipalities assisted the lead strategic investor in negotiating with other local offers and other investors to assure that each new company was formed with strategically located property suitable for ICD development and experienced container trucking or terminal management experience in ownership mix of each new company.

2. Eight provincial governments have completed ICD proposals selected by municipalities and presented to SETC for their review.

3. From the long list of ICD proposals recommended by eight provinces, SETC selected 13 ICDs covering the five provinces in accordance with a dozen of selection criteria. Those include:

- having adequate demands or potential demands for container handling;
- fitting in with the corridor concept;
- serving as common-user facilities and provide standard menu of services;
- having the legal status of limited liability companies or limited by stock companies;
- demonstrate that private sector investors are not interested in investing in them;
- having connected with major transport network;
- having customs and other cross border inspections be made available;
- having located in operationally and environmentally desirable locations;
- located in the outskirts of cities so as to avert container traffic from moving into the city center;
- having freight forwarding licenses; and
- equipped with EDI so as to provide container location information to other users.

4. After the discussion with the Bank, the final list of the ICD proposal was reduced to 10 ICDs. During the negotiations in January 1999, the Chinese delegation advised the Bank of their decision to drop the Shijiazhuang ICD from the loan.

Annex 13 **Framework for the Lending to Tianjin Port Authority**

1. During the pre-identification mission in November 1996, the Bank made clear to Tianjin Port Authority (TPA) its prerequisite to the lending to the port sector. The prerequisite is the introduction of the intra-port competition with the private sector participation in the container terminal operations.

2. In response to the Bank's position, TPA has taken several actions as follows:

- TPA decided to form a joint venture (JV) for another affiliate SOE terminal operator, Oriental Container Company, in 1996. It concluded a joint venture agreement with foreign investors in January 1997. The JV was established with its registration with State Business Administration Bureau and Municipal Tax Bureau in March 1997, and operationalized with issuance of operational license from MOC in October 1998.
- TPA agreed with the Bank in November 1997 to take the policy action to convert its affiliate SOE terminal operator, Tianjin Harbour Container Company (THCC), into either a joint venture (JV) or a stock company. In May 1998, TPA decided to pursue the second option, initiating the process for the corporatization of THCC through the public offering. In August 1998, TPA sent to the Bank a letter committing themselves in implementing this process within three years (see Annex 11 for detailed actions). It was agreed during appraisal mission in July 1998 that the public offering is aimed at mobilizing the fund primarily for the development of the future construction of the container berths at North Port.

3. Since the above actions will lead to the introduction of the intra-port competition between two commercially oriented entities with private sector participation, the Bank has agreed to extend financial and technical assistance to TPA. The assistance would consist of:

- lending to the quay-side gantry cranes, rubber tired gantry cranes and other container handling equipment;
- technical assistance for: (i) the establishment of a "level playing field" for the intra-port competition between two terminal operators; and also (ii) the establishment of arm's length relationship between port authority and terminal operators by separating the regulatory and operational functions of TPA; and
- technical assistance for the enhancement of berth productivity by reducing idle time and taking other measures to increase the utilization of container berths.

Annex 14

Description of the Technical Assistance (TA)

A. Overall Coordination and Oversight

Because of the multiplicity of the TA activities, CPMO will carry out technical assistance programs under the following arrangements:

- A TA plan: To maximize the impact of the TA activities and ensure the well integrated TA activities, CPMO will prepare a TA plan. The TA plan will set out: (i) the sequence of TA activities by setting out an overall time table for those activities; (ii) selection criteria for study team members and those for participants in the study tours; and (iii) reporting requirements for study tour participants; and (iv) other administrative matters. This TA plan would be discussed with Bank's Resident Mission in China (RMC) and Canadian International Development Agency (CIDA) for their review.
- TA Completion Report: Upon the completion of the TA programs, CPMO will prepare a TA Completion Report which will be sent to SETC, the Bank and CIDA for their review.

B. TA Programs for ICDs

1. ICD Capacity Building Programs

- Development of business plans: This sub-component would be carried out in two stages: (i) the organization of a workshop with participation of top managers of project ICDs in which the needs for and utility of business plans will be explained by foreign consultants and then a model business plan be developed through the discussions between foreign experts and participating top managers of ICDs; (ii) the development of business plans for individual ICDs with technical assistance of foreign consultants. Bank loan proceeds will be used for this TA totaling US\$64,600, of which US\$35,000 would be used for the engagement of an individual foreign consultant.
- Development of an operational manual: An operational manual would be developed to ensure the smooth and safe operations of the container yards, proper cargo handling, efficient use of container handling equipment, safe and economical operations of tractor trailers, proper gate operations, inspections of containers for proper hand-over, and protection of environment (see B. 3). A individual foreign consultant will be engaged for this activity with an estimated cost of US\$ 30,000. A series of workshops will be held for training operational staff of ICDs. The total cost of this TA would be US\$61,000, which the Bank would finance.
- Development of financial statements and a manual for their preparation: RMC staff and a Chinese consultant has developed model financial statements with use of MOF's standard formats for stock companies, along with the reporting formats for ICD's financial situation. In parallel, they has also develop a manual which is intended to provide ICD staff with guidance in preparing financial statements. This activity (costing US\$ 15,000) was financed by PHRD fund since it is a part of the project preparation activities (to demonstrate the financial management capability of the project entities).

- Foreign study tours for government officials: CIDA will organize study tours for approximately 60 policy planners of government agencies, both central and local. The participants would include the key officials responsible for transport services, and intermediary services such as customs, commodity inspections, quarantine, port management, freight forwarding, and other critical aspects in the delivery of multi-modal transport. CIDA will define selection criteria for the study tour participants and participate in the selection of the range of potential candidates (to be discussed between CIDA and CPMO). It is anticipated that three study tours would be organized by seniority/function of 15-20 persons each. The first one would take place in November 1998, while the remaining two in 1999. Included in the design would be in-China preparation seminars to orient the groups generally to the Canadian intermodal transportation industry, to develop individual/group. It was also agreed that one of the study tours will be designed around customs and cross-border inspections and customs clearance management as they relate to intermodal operations in Canada. Participants would include trade facilitation officials from the General Customs Administration of China, representing inspections and quarantine, as well as port-of-entry policy and administrative personnel connected with intermodal operations in the project targeted locations. The cost estimation for this activity has not yet been made available.
- Study tours for ICDs: Foreign study tours will be organized to look into the modern ICD operations in North America, Europe and Asia. In total, 52 people will participate in the tours. The tours will be organized after the a model business plan is developed. Foreign consultants recruited for the development of business plan would assist CPMO in organizing these foreign study tours. Similarly arranged domestic study tours would also be organized for ICD managers. The costs of these activities (US\$234,000) would be funded by the Bank loan proceeds.

2. ICD Financial Management Enhancement

- Training for enhancing financial management capability and internal control: CIDA will provide TA to assist project ICDs to get their staff familiar with accounting standards and practices. This would facilitate the understanding of the ICD accountants on the background and the utility of the model financial statements to be developed by the RMC experts and the Chinese consultant. This CIDA training would also be designed to enhance the financial management capability of the project ICDs and strengthen the internal control for the accounting processes. The training would be provided by consultants to be funded by CIDA.
- Use of the off-the-shelf software for accounting and financial management: As a part of the above training, CIDA would provide the fund for purchasing appropriate software for financial management . The cost of training would be covered by supplier of the software.

3. ICD Environment Management Program

- Environmental management module for ICD: CIDA will assist CPMO to develop an environmental management module, which would include the development of standard operating procedures such as emergency response planning, developing simulation models for dealing with emergency response activities, effective spatial planning for container terminals respecting environmental considerations, environmental assessment and management, environmental mitigation, integrated environmental services, hazardous material handling and waste water treatment. The standard operating procedures would be incorporated in the Operational Manual so as to ensure the implementation of environment related recommendations in the daily operation of the ICDs. The cost estimation for this activity has not yet been made available.

4. Study Program of Policy and Regulation

- TA for Drafting Recommendations on Policy and Laws to facilitate Container Transport Development: The study team will be established and would consist of 10 officials and experts from relevant ministries & commissions of State Council. The team will investigate and research existing policy, laws, regulations, management systems of China's container transport to find out problems of the current systems. Then, they will go to Canada to learn foreign advanced experiences. The study team will put forward specific recommendations for these identified problems in China. CIDA will fund the study program.

C. TA Programs for Port Component

1. Port Efficiency Enhancement Program

- TA for enhancing berth productivity at Tianjin Port: The study is aimed at enhancing the efficiency of container handling operations at a container terminal operated by THCC by improving the current container handling practices. The study consists of a series of tasks: (i) developing a set of performance indicators which allow TPA to compare its performance with other similarly situated ports, both domestic and foreign; these performance indicators should reflect the needs of users, particularly shipping lines; (ii) comparing THCC's performance with other comparable ports in terms of operational efficiency and user orientation; (iii) identifying the real causes of low productivity and inadequate user orientation; and (iv) developing a strategy for enhancing productivity of container operations and increasing user orientation. The study would be funded by the Bank loan proceeds. The cost of the study would be in total US\$ 52,000, of which foreign individual consultant would be US\$27,000.

2. The establishment of an intra-port competition

- The Bank would provide technical assistance for the establishment of: (i) a "level playing field" for the intra-port competition between two terminal operators; and also (ii) an arm's length relationship between port authority and terminal operators by separating the regulatory and operational functions of TPA. These activities would be financed by the Bank loan proceeds with estimated cost of US\$60,000. Among them, US\$30,000 would be allocated for the engagement of an individual foreign consultant.

3. Foreign studies

- Foreign study tours would be organized for inspecting the situation in foreign countries in conjunction with the implementation of the above two studies. Details of these foreign study tours would be elaborated in the TA implementation plan to be submitted to the Bank by March 15, 1999. The total cost would be US\$ 65,000.

4. ICD Environment Management Program

- Environmental management module for Tianjin Port: A module similar to the above TA environmental program for ICDs would be developed for the TPA and THCC. This activity would be financed by CIDA by its grant. The cost estimation for this activity has not yet been made available.

Annex 15

Evaluation of Project Financial Management System

1. In accordance with the Bank OP/BP10.02 and the Guide for Review and Design of Accounting and Reporting System for World Bank Projects (Bank Guide), the task team has conducted assessment of the Financial Management System on the project. The following is the findings and agreements reached with Central Project Management Office (CPMO) and Tianjin Port Authority (TPA).

A. Financial Management System of TPA

2. TPA, an independent state owned enterprise, is one of the borrowers of the project. TPA is responsible for the implementation of a port component. Actual construction works and installation of the equipment would be carried out by Tianjin Harbor Container Company (THCC), a subsidiary of TPA. THCC is not completely independent from TPA with regard to its financial and managerial aspects.

3. The financial management systems of TPA and THCC were assessed during the appraisal, the results of which are summarized below.

- 1) Internal Control. TPA is responsible for preparing the consolidated financial reports which cover its subsidiary companies including THCC. The Financial Division of TPA takes the responsibility of the financial management, which covers the management of assets and investment and the consolidation of financial statements. The Accounting Office of the THCC is in charge of the financial management of company operations, and it reports to the Company Manager and the Financial Division of TPA. The duties for authority, execution, monitoring and reporting are separated in TPA and THCC, and the written requirements and procedures are available to the related staff. Some financial staffs are experienced with the World Bank projects because of their involvement in the previous Bank projects extended to TPA.
- 2) Staffing. The Financial Division of TPA and the Accounting Office of THCC, both, have experienced financial staff. 18 financial staffs are working in the financial division of TPA, of which 7 are accountants. 11 financial staffs including 4 accountants are working in the Accounting Office of the THCC.
- 3) Accounting System. The accounting standards for the transport sector issued by Ministry of Finance (MOF) in 1993 has been used by TPA. These standards were developed in accordance with the latest accounting regulation of Chinese Government which is similar to International Accounting Standards but with some discrepancy from them. The written policies and procedures are available and distributed to related staff. The accounting system has been partly computerized since 1991. Financial Division of TPA and subsidiary companies' accounting offices are using the same standards, but information exchange between TPA's Financial Division and the accounting offices of subsidiary companies is still made manually. The accounting software was developed by TPA and worked very well.
- 4) Financial Statement. Basic financial statements, such as Balance Sheet, Income Statement, Statement of Changes in Financial Position, are regulated by the Transportation Sector Accounting Standards. In addition, various financial statements have to be provided to different government agencies. The format of these basic financial statements can be understood. The Bank team and TPA shared the same view that the Bank required financial statements attached to the Guide can be generated from the current accounting system by adding minor changes to Charts of Accounts.
- 5) Arrangements for Audit. There is Audit Division under TPA which is in charge of internal auditing of the enterprises under TPA. The financial statements of the subsidiary companies should be

audited prior to the submission to the Financial Division of TPA. However, no regular independent auditing is carried out for TPA. The Annual Financial Report of TPA is lack of an audit report (see para 9 for the agreed action to be taken).

B. Financial Management System of ICDs

4. Since all ten inland container depots (ICDs) are new companies (either limited liability companies or stock companies), it is critical to establish a strong institutional capacity for the financial management. For this purpose, the task team has recommended ICDs to take several actions before the project ICDs become operational in January or February 2000. Those actions are as follows:

- 1) Staffing. An adequate number of financial staff should be recruited before the Project gets started. The Chief Financial Officers should have adequate experience and credentials in accounting and financial management. They should also be able to maintain accounting books, exercise adequate internal control and produce financial information and statements. The staffs need to be trained to get them familiar with the Bank requirements.
- 2) Accounting System. In consideration of the fact that project ICDs are to be established as either limited liability companies or stock companies, the task team recommends these ICDs to use the accounting standards for stock companies issued by MOF in January 1998, which is much more closer to International Accounting Standards than the previous accounting standards used in China. A project financial management manual, which is under preparation by CPMO with help of the Bank task team should be used as a guideline. The proper accounting software should also be used.
- 3) Internal Control. ICDs should prepare and make available to related staff a detailed guideline on policies and procedures of the financial management. It should include the internal control over current and fixed assets, sources and applications of the Bank and local funds, delegation and segregation of duties, timely and accurate financial reporting requirements, etc.
- 4) Auditing. Provincial Audit Bureaus were identified as acceptable auditors. These Audit Bureaus will conduct the project audit and submit four separate annual audit reports for the activities related to each province. In addition, the corporate financial status should also be audited by these Bureaus on an annual basis.

5. In addition, in view of the importance of developing a strong institutional capability for the financial management, Canadian International Development Agency (CIDA) has agreed to provide extensive training to staff of the project ICDs on the financial management system. CIDA will also provide ICD operators with computer software for accounting and financial management, and train the staff of ICDs to get them familiarized with the use of the software.

C. Project Financial Management and Reporting System

6. TPA and ICDs are the executing agencies of the project which will sign the contracts and use the loan proceeds. The project accounts will be kept by TPA and project ICDs. Project management offices (PMOs) and Finance Bureaus (FBs) at each level will monitor the financial management system of TPA and ICDs, and compile the project accounting reports, corporate financial statements, and audit reports (see an attached flow chart). The Special Accounts will be located in the local commercial banks and managed by provincial FBs. Cash disbursement and approvals of the project expenditure will be carried out by FBs in consultation with PMOs. The detailed disbursement procedures are described in Annex 6 of PAD. FBs will keep relatively simple books and records related to project funds flow. The project budget will be prepared by TPA and ICDs, subject to review and approvals by PMOs and FBs, and then by CPMO. The approved budget will be executed by TPA and ICDs. Provincial Audit Bureaus will audit

the financial statements of ICDs within their territories, and Tianjin Municipal Audit Bureau will audit those of TPA. The Bank will receive the separate audit reports from three provinces and TPA through CPMO.

7. Following the Bank Guide, MOF's accounting regulations on stock companies and the January '99 agreements on the financial reporting formats reached between the Bank and MOF, CPMO and TPA has agreed to provide to the Bank the following project financial statements:

Enterprise Financial Statements

- (a) Balance Sheet
- (b) Income Statement
- (c) Cash Flow Statement

Project Financial Reports

- (d) Project Balance Sheet
- (e) Summary of Sources and Uses of Funds by Components
- (f) Statement of Implementation of Loan Agreement
- (g) Special Account Statement

8. The above statements are submitted to the Bank on a semi-annual basis. Statements (a) to (c) which are regulated by the Stock Accounting Standards would be submitted for each ICD. Statements (d) to (g) which will be used by project supervision would be consolidated for the whole project. The statements should be received by the Bank within one month after the end of each quarter. The annual financial statements (the statements of the last quarter of the calendar year) should be accompanied by an audit report on them.

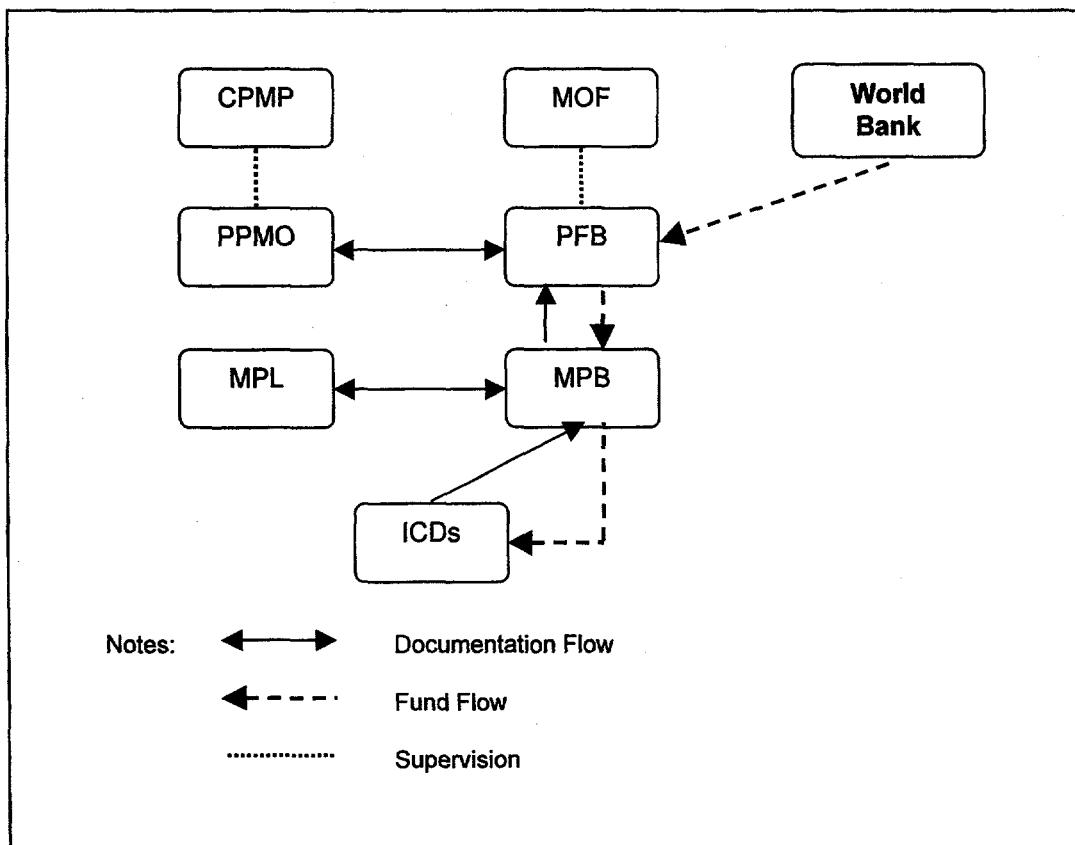
D. Agreements Reached

9. Previous performance of the TPA in the execution of the Bank projects, together with the results of the assessment carried out by the Task Team member, has indicated that the TPA has adequate capability of the financial management and internal control except the current practices of auditing. In recognition of the problem, TPA has agreed to:

- to get its project accounts and corporate financial statements to be annually audited by Tianjin Audit Bureau and send audit reports to the Bank for its review.

10. In consideration of the fact that the project ICDs are new companies, the CPMO has agreed to get project ICDs to implement the recommendations listed in para 4. To facilitate their implementation, CPMO has agreed to implement the following actions before project ICDs become operational.

- Preparation of model financial statements by the end of October, 1998 [A responsible agency: CPMO] – This was finished at the end of 1998.
- Development of a Manual for the preparation of the financial statement by the end of October 1998 [CPMO]. The Manual should include the format of the financial statements, requirements on the accounting, the major discrepancy between the current Chinese accounting standards and Internationally Acceptable Accounting Standards– This was finished at the end of 1998.
- Development of a Manual for the Project Disbursement by the end of October, 1998 [CPMO]. This manual would set out detailed procedures of the internal disbursement processes – This was finished at the end of 1998.
- Participation in CIDA's training programs designed to enhance the financial management capability of the ICDs [ICDs]. The training program would be provided between November 1998 to June 1999.



Annex 16

Procurement Plan for Goods (Packaging and Processing Schedule)

(1 page 1 of 2)

20-Jan-99

Bid	Package	No.	Name of Equipment	# of Unit	Procure-ment Method	Procurement Schedule				
						Drafting Bidding Document	Send to The Bank	Evaluation Report	Contract Signed	Delivery of Goods
I	1	1	Top-lift (40.5 ton)	9	ICB	Jul-98	Apr-99	Aug-99	Sep-99	May-00
	2	2	Vehicle crane (50 ton)	9	ICB					
	3	3	Container reach stacker (5 layers)	1	ICB					
	4	4	Container fork-lift (6-8 ton)	4	ICB					
	5	5	2.5 ton low gate fork-lift	31	ICB					
II	5	6	Container tractor (40 F container)	169	ICB	Nov-98	May-99	Sep-99	Oct-99	May-00
	7	7	Container tractor (20 F container)	95						
	6	8	Container trailer	226						
	9	9	Oil-tank semi-trailer (volume: 15-18 m ³)	2						
	7	10	Engineering succumbing vehicle	21						
III	9	12	Quayside container crane (40.5 ton & 56 m stretch)	3	ICB	Nov-98	Apr-99	Sep-99	Oct-99	Nov-00
	10	13	Rubber tyred gantry crane (40.5 ton, 23.47 m span)	13	ICB					
V	11	14	Container fork-lift (38 ton, 12 m lift height)	5	ICB	Nov-98	Jun-99	Sep-99	Oct-99	Aug-00
VI	12	15	Server	20	ICB	Nov-98	Jun-99	Nov-99	Dec-99	Apr-00
		16	PC station	168						
		17	Network printer	9						
		18	PC printer	72						
		19	Uninterrupted power supply (UPS)	18						
		20	Scanner	9						
		21	Hub	27						
		22	Network adapter	168						
		23	MODEM	27						
		24	Server operation system	9						
		25	Database management software	9						
		26	Database develop software	9						
		27	Office application software	18						
		28	Optical character recognition (OCR)	9						
		29	Preliminary distribute system (PDS)	195	ICB	Nov-98	Jun-99	Nov-99	Dec-99	Apr-00

Annex 16
Procurement Plan for Goods (Packaging and Processing Schedule)

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Bid	Package	No.	Name of Equipment	# of Unit	Procure-ment Method	Procurement Schedule				
						Drafting Bidding Document	Send to The Bank	Evaluation Report	Contract Signed	Delivery of Goods
VII	13	30	Snow swept vehicle	1	NS	May-99	Jun-99	Aug-99	Sep-99	Apr-00
		31	Sprinkling vehicle	1						
	14	32	Programmed control switch board (PCSB)	8		Apr-99	May-99	Jul-99	Aug-99	Dec-00
		33	Telephone	360						
	15	34	Electrograph	45		Apr-99	May-99	Jul-99	Aug-99	Dec-99
		35	Copy machine	27						
	16	36	Wireless interphone	40		Apr-99	May-99	Jul-99	Aug-99	Dec-99
		37	Color camera	36						
	17	38	Monitoring board	36		Apr-99	May-99	Jul-99	Aug-99	Dec-99
		39	Covered outdoor video camera	36						
	18-1	40	Video cable	9		Apr-99	May-99	Jul-99	Aug-99	Dec-99
		41	Electronic vehicle weighing apparatus (Baotou)	1						
	18-2	42	Electronic vehicle weighing apparatus (Handan, Baoding, Qinhuangdao)	3		Oct-99	Nov-99	Jan-00	Feb-00	Sep-00
		43	Electronic vehicle weighing apparatus (Cangzho, Tangshan)	2						
	19	44	Boiler	0		Jun-99	Jul-99	Sep-99	Oct-99	Jul-00
	20	45	Refueling machine	4						
		46	Electric generator	5		May-99	Jun-99	Aug-99	Sep-99	Apr-00

Annex 17
Procurement Plan for Civil Works NCB

Bid No.	Package No.	Location	Preparation of bidding document	Send to RMC	Evaluation Report	Contract signed	Completion of construction
I	1	Xintang ICD	February 1999	April 1999	July 1999	July 1999	April 2000
II	2 3	Xiaoshan ICD Huzhou ICD	February 1999	April 1999	July 1999	July 1999	February 2000 March 2000
III	4	Baotou ICD	February 1999	April 1999	July 1999	July 1999	October 2000
IV	5 6 7 8 9	Handan ICD Qinhuangdao ICD Tangshan ICD Baoding ICD Cangzhou ICD	February 1999	April 1999	July 1999	July 1999	July 2000

N.B. Based on the agreement during the negotiations held in January 1999.

Annex 18
Main Features of Individual Project ICDs

(Page 1 of 2)

Site of ICD	Baoding	Baotou	Cangzhou	Handan	Hangzhou	Huzhou	Qinhuangdao	Tangshan	Xiaoshan
Area (m ²)	46,200	120,000	45,000	17,200	41,867	21,100	59,740	33,300	95,467
Date set for forming new Co	9/98	8/98	6/98	7/98	8/98	8/98	7/98	8.98	12/97
Corporate Form	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.	Independent Limited Liability Co.
Equity Investors	i) Baoding Trucking Gen.Co. (na) ii) Baoding North China Industrial Co. (%na) iii) Hebei Construction Group Co. (% na) Total brd 7	i) Baotou Trucking Co, (15%) strategic investor/7 brd ii) Baotou Fuel Co. (85%) passive investor/2 brd	i) Cangzhou Trsp Grp Co/(4 brd) 92% ii) Shanghai Volkswagen Repairing Branch/(8%) 1 brd	i) Handen No.1 Trsp General Co. (61%)/3 brd ii) Handen Tongji Gni Industrial Co./ (39%)/2 brd iii) Zhejiang Xizi Elevator MfgCo./ (30%)/1 brd	i) Hangzhou Xiantang Trucking Co. (60%)/3 brd ii) Zhejiang Port Econ and Trade Dev. Co. (20%)/1 brd iii) Zhejiang Xizi Elevator MfgCo./ (20%) brd membership still pending	i) Huzhou Harbor Co. (60%)/3 brd ii) Huzhou Integrated Trnspl Co/(20%) iii) Huzhou Yunlong Intern.FrtCo./ (19.5%)/1 brd	i) Qui Huang dao Rwy Admin/(61%)/3 brd ii) Qui huang dao Combined Transp Co. (19.5%)/1 brd iii) Qui huangdao No.2 Trnspl Co. (19.5%)/1 brd	i) Hebei International Container Trsp Co. (100%) ii) Still seeking a second investment partner	i) Zhejiang Denfeng Trnspl Grp.Co/(50%)/2 brd ii) Xiaoshan Municipal Internl. Container Trnspl Co. (40%)/2 brd iii) China Commercial Soc. (10%)/brd
Equity Contributions	i) Cash and equipment ii) land iii) n.a.	i) Cash and equipment ii) land	i) land, cash and existing facility ii) cash	i) Land, cash, existing facilities and equipment ii) same	i) land and existing facilities ii) and iii) cash	i) land and facilities ii) equipment and cash iii) cash	i) land equipment ii) and iii) cash	i) all assets currently in parent company which will be reorganized as a joint stock company	i) cash ii) land and existing facility iii) cash
Assumed Social Liability	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical	Pension Housing Medical
Background of Management Team	Trucking-10 yrs + CEO GM and CFO yet to be selected from outside	Trucking 17 yrs Finance 5 yrs Mgt Commitment 100%	Trucking 17+ yrs Finance 5 yrs. CEO part time	Trucking 18+ yrs. Finance 5 yrs. CEO part time	Trucking 21 yrs Finance - 10+ yrs	Trucking 7 yrs Finance 5 yrs CEO part time	Trucking 8 yrs. Finance 3 yrs. CEO part time	Trucking 20 yrs. Finance 10 yrs. CEO same as for Shijiazhuang, part time in both	Trucking 8 yrs Finance 5 yrs

Annex 18
Main Features of Individual Project ICDs

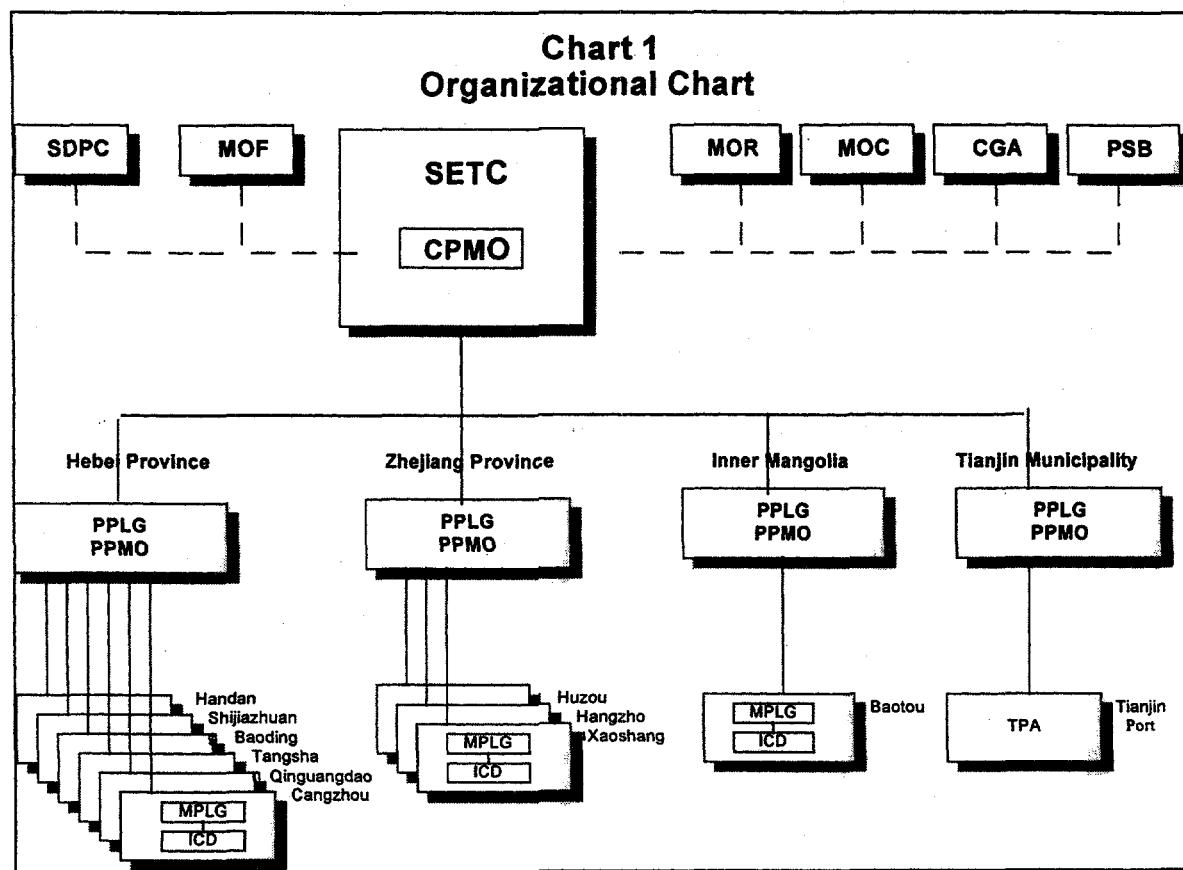
(Page 2 of 2)

Site of ICD	Baoding	Baotou	Cangzhou	Handan	Hangzhou	Huzhou	Qui huangdao	Tangshan	Xiaoshan
Additional Outside	8.5mm Y: Local	25.23mm Y: Local	5.00mm RMB:local	8.0 mm RMB: Local	12.7mm RMB:Local	Line limit not defined	7.5mm RMB: Local	Limited Financing	8.72mm RMB: Local Commercial
Borrowing	Commercial Bank	Commercial Bank	Commercial Bank	Commercial Bank	Commercial Bank	May not be required	Commercial Bank	Required: No external Fin. in place	Bank
Total Capitalization	18.98mm RMB - Debt to equity: 1.84 Bank debt to equity:1.37	46.07 mm RMB - Debt to equity: 1.83 Bank debt to equity 1.24	24.73mm RMB - Debt to equity: 1.22 Bank debt to equity: 1.00	18.61mm RMB - Debt to equity: 1.85 Bank debt to equity: 1.41	33.02mm RMB – Debt to quity: 1.75 Bank debt to equity: 1.37	Apparently 19.06mm RMB but needs to be checked.Debt to equity:.81 Bank debt to equity: .81	23.12mm RMB - Debt to equity: 1.39 Bank debt to equity: 1.07	30.03mm RMB - Debt to equity: .98 Bank Debt to equity: .95	18.47 mm RMB - Debt to equity: 1.83 Bank debt to equity:1.34
Current Organizational Status	State Owned	State Owned	State Owned	State Owned	Collective	State Owned	State Owned	State Owned	Already exiting Lmtd Liability Co.
Actions Taken	i) Agreement between two shareholders ii) Seeking 3rd and 4th investors iii) Fixed asset evaluation complete iv) Key employees selected	i) Agreement between shareholders ii) implementation agreement in place iii) Key employees selected.	i) Agreement between shareholders ii) implemen-tation agreement in place iii) Key employees selected.	i) Agreement between shareholders ii) Implemen-tation agreement in place iii) Key employees selected	i) Name determined ii) Registered with Bureau of I and C iii) Selected key employees iv) Prepared to train transferred employees	i) Name determined ii) Agreement between shareholders iii) Implemen-tation agreement in place iv) Fixed asset evaluation complete v) Key employees selected	i) Agreement among investors ii) Survey markets prepared bu. Plan iii) Develop preliminary design iv) Key employees selected	i) Container Terminal Co. already exists, currently expanding ownership ii) Agreement between shareholders iii) Construction and training plans being finalized	i) Adjusting Share Holdings ii) Selected key employee iii) Prepared to train transferred employees
Government Oversight Responsibility	Local ETC	Baotou Local ETC	Local Transport Bureau and ETC	Local Transport Bureau and ETC	No reporting relationship to any branch of government	Local Transportation Bureau and MOFTEC	Local Transportation Bureau	Hebei Communication Department	Xiaoshan Foreign Trade Bureau

Annex 19
Performance Monitoring Indicators

Performance monitoring indicators	1996 (actual)	2000 (forecast)	2001 (forecast)	2002 (forecast)	2003 (forecast)
1. Value of imports and exports to and from project cities (in billion US\$)	19.1	33.3	37.8	43.0	49.1
2. Number of containers handled at project ICDs (in TEUs)	148,000	360,000	425,000	495,000	572,000
3. TEUs handled at THCC	500,000	732,000	805,000	886,000	974,000
4. Number of boxes per vessel hour at THCC	18	23	26	30	34
5. Average container cycle time (in days) between gateway ports and selected ICDs (Shijianzhuang and Hangzhou)	11 days	9 days	9 days	8 days	8 days

N.B.1 Source: CPMO and TPA.



MAP SECTION

CHINA CONTAINER TRANSPORT PROJECT

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