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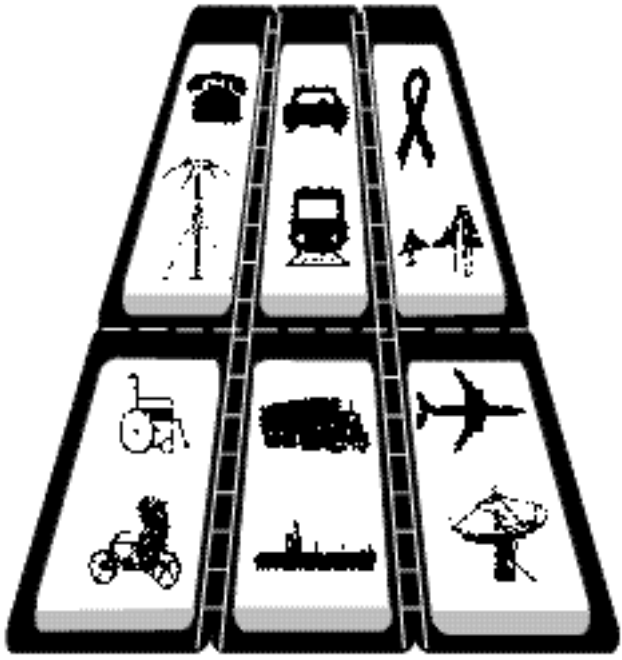

TRANSPORT AND COMMUNICATIONS BULLETIN FOR ASIA AND THE PACIFIC

No. 73

Private Sector Participation in the Transport Sector: Policy Measures and Experiences in Selected Countries

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Editorial statement

The *Transport and Communications Bulletin for Asia and the Pacific* is a peer-reviewed journal published once a year by the Transport and Tourism Division of the Economic and Social Commission for Asia and the Pacific (ESCAP). The main objectives of the *Bulletin* are to provide a medium for sharing knowledge, experience, ideas, policy options and information on the development of transport infrastructure and services in the Asian and Pacific region; to stimulate policy-oriented research; and to increase awareness of transport policy issues and responses. It is hoped that the *Bulletin* will help to widen and deepen debate on issues of interest and concern in the transport sector.

As the demand for providing infrastructure and services becomes more and more pressing, Governments in the Asian and Pacific region have increasingly turned to the private sector for additional resources and to capitalize on the private sector's efficiency and innovation in many fields, including that of transport infrastructure and services. Many Governments have spelled out their policy and regulatory framework to promote, facilitate and regulate private sector involvement in infrastructure projects and related public services. Innovative models of private sector participation (PSP) and public-private partnerships have emerged. However, the number and success of PSP/PPP projects depend to a great extent on the overall policy environment and capacity of government agencies to handle PSP/PPP projects.

In consideration of the importance and wide interest in the subject, private sector participation in the transport sector was chosen as the theme for both the current and previous issue of the *Bulletin*. While volume 72 focused mainly on institutional development and regulatory aspects, volume 73 focuses on policy measures and experiences of private sector transport infrastructure development in a few selected countries of the Asian and Pacific region, namely, China, India and Malaysia. They are among the few countries in the region which have been most successful in attracting private sector projects in infrastructure development. It may be mentioned here that some policy aspects concerning PSP/PPP development in the Philippines, the Republic of Korea and other countries were considered in volume 72 of the *Bulletin*, which focused on institutional development.

Four articles, primarily on policy aspects of PSP/PPP development in China, India and Malaysia, have been selected for the current issue (No. 73). In addition to these four articles, there is also an information note on an interesting development in Bangladesh concerning a fomal process for the identification and selection of infrastructure projects for the private sector.

The first article discusses the current status of road development in China and the experience of private sector participation through various schemes. China has been the most successful developing country in Asia in attracting private sector projects in transport infrastructure development, particularly in the road subsector. About 28 per cent of such investments in the transport sector of the region went to the road subsector in China.

There are two articles on policies in India and one on policies in Malaysia. The first article on Indian initiatives reviews government policies for the maritime and air transport sub-sectors and investigates whether the privatization initiatives of the Government have achieved their desired objectives. The second article on India is also similar in nature but focuses on the road and railway subsectors. The subject of the last article in this issue is liberalization of the container haulage industry in Malaysia. The article discusses various measures that have been taken by the Government of Malaysia to liberalize the haulage industry and also examines the rationality to liberalize the industry and the implications of doing so.

The four articles included in this volume discuss important policy issues related to PSP/PPP development and experiences of private sector participation in transport infrastructure development in China, India and Malaysia. It is expected that they will generate further debate on the issues that have been discussed and increase awareness of their policy implications and responses. It is also expected that the articles will increase the awareness of private sector participation and motivate discussions on the formulation of effective policy measures for the promotion of PSP/PPP development in the transport sector in other countries of the region.

The *Bulletin* welcomes analytical articles on topics that are currently at the forefront of transport infrastructure development and services in the region and on policy analysis and best practices. Articles should be based on original research and should have analytical depth. Empirically based articles should emphasize policy implications emerging from the analysis. Book reviews are also welcome. See the inside back cover for guidelines on contributing articles.

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TRANSPORT AND COMMUNICATIONS BULLETIN FOR ASIA AND THE PACIFIC
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CONTENTS

PRIVATE SECTOR PARTICIPATION IN THE ROAD SECTOR IN CHINA

Makoto Ojiro*

ABSTRACT

Transport links are necessary to improve economic efficiency and reduce poverty. For this purpose, the Government of China is embarking on the development of the national trunk highway system, a network of interprovincial expressways of 35,500 km, during the period 1991-2010 with the help of external assistance, such as that of the Asian Development Bank. This is complemented by the development of a secondary and tertiary road network. To finance the road investment, however, a large financing gap needs to be filled. To this end, the Government is creating a framework to encourage private sector participation in financing road investments. This paper discusses the current status of road development in China and the experience of private sector participation through cooperative joint ventures, securitization, revenue bond financing and BOT schemes. The paper also raises some issues associated with such approaches to road infrastructure financing.

INTRODUCTION

Despite considerable investments in the road sector, the road network in China is still inadequate and does not provide efficient transport access to large parts of the country. Better transport links are necessary to improve economic efficiency, foster domestic and international trade, facilitate regional integration and reduce poverty. The road network must be developed to facilitate sustainable economic development and to ensure that the impact of investments reaches poor

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areas and rural residents in the hinterlands, thus spreading economic and social benefits widely. To finance road investment, it is estimated that about $ 504 billion is needed from 1996 to 2010. Available revenues are estimated at $ 302 billion from road user charges and $ 29 billion from toll collections, leaving a financing gap of $ 173 billion or about $ 12 billion per year. To fill the large financing gap, the Government is creating a framework to encourage private sector participation in financing road investments.

I. OVERVIEW OF ROAD DEVELOPMENT

A. Government policies and plans

The heart of the road network is the national trunk highway system (NTHS), a network of interprovincial expressways and high-class highways of about 35,500 km, to be constructed over a 20-year period up to 2010 (see map and table 1). About 17,900 km, or 51 per cent, was completed as of end 2000. NTHS will be

Table 1. National trunk highway system

Route no.	Cities connected	Distance in km
North-South direction		
GZ10	***Tonjiang-Sanya***	5 200
GZ20	Beijing-Fuzhou	2 500
GZ30	***Beijing-Zhuhai***	2 400
GZ40	Erlianhaote-Hekou	3 600
GZ50	***Chongqing-Zhanjiang***	1 400
East-West direction		
GZ15	Suifenhe-Manzhouli	1 300
GZ25	Dandong-Lhasa	4 600
GZ35	Qingdao-Yinchuan	1 600
GZ45	***Lianyuang-Huoerguosi***	4 400
GZ55	***Shanghai-Chengdu***	2 500
GZ65	Shanghai-Ruili	4 000
GZ75	Hengyang-Kunming	2 000
	Total	**35 500**

Source: Ministry of Communications.

Note: The routes in bold face are priority routes.

complemented by the development of a network of new national, provincial, county and township roads. The Government views road development as a key component of its strategy to improve access to markets and services. In particular, the Government's investment plans for the road sector consider the need to provide infrastructure so as to facilitate economic growth and reduce poverty. Government policies for road development are based on the following principles: (a) constructing expressways to expand NTHS to link all cities with a population of more than 500,000; (b) developing secondary roads, particularly those that will help reduce poverty and promote rural markets; and (c) building roads that will support regional cooperation with neighbouring countries in the south-west, north-east, and north-west.

The tenth Five-Year Plan (2001-2005) calls for (a) accelerating the construction of the backbone network of highways and national roads, with the focus on five north-south and seven east-west expressways included in NTHS, and achieving full opening of three north-south and two east-west expressways; (b) achieving the initial construction of eight new highways in the western region to improve the structure of the highway network and its reach; and (c) by 2005, having approximately 1.6 million km of highways open to traffic, with expressways accounting for 25,000 km. To improve road conditions, the 10FYP will support highway construction in the rural areas and the Government will complete building the roads that link poor counties with national and provincial highways. The current status of road development in China and the target for 2005 are shown in table 2.

In March 2000, the Government adopted the long-term western region development strategy for developing the western part[1] of the country. This strategy, being the key theme of the 10FYP, aims to reduce development disparities between the western region and the coastal region and road development is given highest priority as an effective means to promote economic growth and reduce poverty in the region. In the road sector, the strategy aims at (a) facilitating economic development and poverty reduction in the western region, where road

[1] Consisting of the following 12 provinces: Xingjiang, Qinghai, Gansu, Ningxia, Xizang, Sichuan, Yunnan, Guizhou, Shaanxi, Chongqing, Inner Mongolia, and Guangxi.

Table 2. Road development in China during 1995-2005

	Road length (km)	Road density (km/100 km^2)	Expressway length (km)	Township with road access (percentage)	Village with road access (percentage)
1995	1.16 million	12.05	2 141	97.1	80
2000	1.40 million	14.61	16 314	98.3	89
Annual construction (1995-2000)	48 000 km/year	–	2 835 km/year	–	–
2005 (target)	1.60 million	16.70	25 000	99.5	93
Annual construction (2000-2005)	40 000 km/year	–	1 737 km/year	–	–

Source: Ministry of Communications.

density is only less than half of the national average; (b) linking the western region with the central and eastern regions; (c) providing access to the trade outlets for the western region at the eastern and southern seaports; and (d) promoting regional cooperation with the neighbouring countries to the west and south-west of China. To achieve these objectives, the eight priority routes[2] were identified by the Government.

B. Asian Development Bank's assistance

Since 1991, the Asian Development Bank (ADB) has provided 22 loans (see table 3 and map) totalling nearly $ 3.6 billion to finance 3,000 km of highway development, together with the associated 4,484 km local road network. Local roads have been included in the project scope since 1995 to make ADB intervention in the road sector more pro-poor. Of these, 15 have been completed and are open to traffic. Most expressway projects are being implemented ahead of the original construction schedules and within the original costs. The project completion reports of these projects concluded that eight projects were

[2] These are Altai-Hongqilafu, Xi'ning-Korla, Yinchuan-Wuhan, Arongqi-Behai, Lanzhou-Mohan, Xi'an-Hefei, Chongqing-Changsha, and Chengdu-Zhangmu.

Map of the road sector projects financed by the Asian Development Bank in China

successful and one was partly successful, mainly owing to inadequate safety facilities, enforcement and partial compliance with environmental mitigation measures. Remedial actions have been subsequently taken to address these problems. The post-evaluation reports for four projects concluded that all these projects were successful.

Table 3. Completed or ongoing ADB-financed road projects

No.	Project	Length (km)	Loan (millions of dollars)	Year of approval	Year of opening
1	Shanghai-Nanpu Bridge	–	70	1991	1991
2	Shanghai Yangpu Bridge	–	85	1992	1993
3	Shenyang-Benxi Highway	75	50	1992	1996
4	Hunan Expressway	52	74	1993	1996
5	Jilin Expressway	133	126	1993	1996
6	Heilongjiang Expressway	350	142	1994	1997
7	Yunnan Expressway	200	150	1994	1998
8	Hebei Expressway	200	220	1995	1999
9	Liaoning Expressway	110	100	1995	1998
10	Chongqing Expressway	89	150	1996	2001
11	Shenyang Jinzhou Expressway	192	200	1996	2000
12	Jiangxi Expressway	134	150	1996	2000
13	Hebei Roads Development	140	180	1997	2000
14	Chengdu-Nanchong Expressway	208	250	1998	Ongoing
15	Changchun-Harbin Expressway (Changchun-Yushu)	161	220	1998	2002
16	Changchun-Harbin Expressway (Harbin-Shuangcheng)	101	170	1998	2001
17	Southern Yunnan Road Development	147	250	1999	Ongoing
18	Shanxi Road Development	176	250	1999	Ongoing
19	Chongqing-Guizhou Roads (Leishendian-Chongxihe)	50	120	2000	Ongoing
20	Chongqing-Guizhou Roads (Chongxihe-Zunyi)	127	200	2000	Ongoing
21	Shaanxi Roads Development	176	250	2001	Ongoing
22	Guangxi Roads Development	179	150	2001	Ongoing
Total		**3 000**	**3 557**		

Source: ADB estimates.

Key findings of the post-evaluation of completed projects are summarized below. Heilongjiang Expressway project: The 350-km expressway connecting Harbin and Jiamusi was completed in August 1997, one year ahead of schedule, costing $ 309 million. The quality of the civil works is sound and the riding quality high. The traffic volume was about 3,000 vehicles per day in 2000. Average travel time was reduced from 15 hours to 4.5 hours, and VOC savings were about 40 per cent. The economic internal rate of return was recalculated at 14.6 per cent. The project was rated successful.

Jilin Expressway project: The 133-km expressway connecting Changchun and Siping was opened to traffic in September 1996, one year ahead of schedule, with the cost of $ 424 million, which was 31 per cent less than the appraisal estimate. The completed facilities were very good following the prescribed design standards. The traffic volume was 5,540 medium truck equivalents per day in 1999. The main project benefits include savings in VOC and time (1.6 hours for cars and 2 hours for trucks). The project fully achieved the target, with a reestimated economic internal rate of return of 12.5 per cent as envisaged during appraisal and was rated as highly successful in 2000.

The Beijing-Tongjiang expressway route (1,867 km), which was recently completed at a cost of about Y36 billion, and has facilitated the economic development in the north-eastern part of China. According to a recent study,[3] the major impacts are beginning to emerge. The average travel time reduction for the entire route was from 35 hours to 17 hours, or 51 per cent reduction for cars and from 45 hours to 25 hours, or 44 per cent reduction for trucks. Traffic diversion from parallel roads to the expressway was significant at a range of 50 to 80 per cent. The accident rate reduction was also significant, ranging between 50 per cent and 76 per cent. During the period 1996-2000, the average annual GDP growth rate for the four provinces and two municipalities serviced by the corridor was 9.7 per cent, 2.6 percentage points higher than the national average of 7.1 per cent. The expressway facilitated the establishment of five economic and technological development zones in Changchun.

[3] ADB, 2002. *Road Sector Impact Study*. Manila (Draft).

C. ADB future plans

ADB operational strategy in China's road sector supports (a) construction of roads that connect major growth centres and promote linkages with hinterland economies; (b) integration of the network so that NTHS is supported by a system of local roads, particularly those that provide access to poor areas; (c) promotion of road safety; (d) further institutional strengthening to increase the commercial orientation and efficiency of expressway organizations; (e) improvement of highway planning and evaluation techniques; (f) adoption of appropriate pricing policies to ensure optimum use of road transport capacity; and (vii) use of alternative methods of investment financing, including private sector participation. Within the operational strategy for China, ADB support for road development will continue in the next four years with a total lending programme of $ 2.4 billion (see table 4). The lending programme is complemented by a technical assistance programme, amounting to $ 10.2 million during the same period (see table 5).

Table 4. ADB's planned road projects during 2002-2005

Year	Proposed projects	Loan amount (millions of dollars)
2002	Shanxi Road Development II (Houma-Yumenkou)	150
	Western Yunnan Roads Development (Baoshan-Longlin)	250
	Southern Sichuan Roads Development (Xichang-Panzhihua)	300
2003	Xi'an Urban Transport	200
	Ningxia Roads Development	250
2004	Guangxi Roads Development II	150
	Hunan Roads Development II	300
	Chongqing Roads Development	300
2005	Gansu Roads Development	300
	Sichuan Roads Development	200
Total		**2 400**

Source: ADB estimates.

Table 5. Planned technical assistance during 2002-2005

Year	Proposed technical assistance	Amount (thousands of dollars)
2002	Guangxi Roads Development II	600
	Hunan Roads Development II	600
	Xi'an Urban Transport	750
	Socioeconomic Assessment of Road Projects	250
2003	Chongqing Roads Development	600
	Gansu Roads Development	600
	Sichuan Roads Development	600
	Transport Sector Restructuring	600
2004	Transport Infrastructure Development for Regional Cooperation	600
	Western Roads I	600
	Urban Transport	600
	Rural Road Development Strategy	500
2005	Western Roads II	700
	Western Roads III	700
	Urban Transport Development	700
	Road Safety Improvement	700
	Rural Transport Services Study	500
Total		**10 200**

Source: ADB estimates.

II. PRIVATE SECTOR PARTICIPATION IN THE ROAD SECTOR

A. Background

Investments in private infrastructure projects totalled $ 44 billion in China during 1990-2000, accounting for 6 per cent of such investments in emerging markets. Although enormous investments were channelled into China's infrastructure over the past two decades, only in the late 1980s and early 1990s did the Government start to allow private investment. As a result private investment accounted for less than 10 per cent of the funds that flowed into infrastructure over the past

10 years. Most came from foreign investors and little from the domestic private sector.

B. Government initiatives

The Government has taken a number of significant steps to mobilize domestic resources, including developing capital markets and transforming specialized banks into commercial banks. ADB has provided assistance to help develop China's capital markets and contributed to improving governance in the capital markets by supporting the drafting of the 1998 Securities Law. The Government is also seeking a greater role for private sector financing in highways and other infrastructure projects. In addition to increasing the resources available for highway development, the use of foreign direct investment would allow project risks to be spread over a large community of investor and help improve the management efficiency and quality of highway services. The Government is assessing a broad range of financial instruments for mobilizing additional domestic and international funding sources, including the domestic capital markets. ADB provided assistance (a) in preparing a feasibility study of financing a road project using the build-operate-transfer (BOT) scheme, and for capacity-building in relation to BOT processes; and (b) in developing institutional capacity to promote corporatization, leasing and securitization to attract private sector participation in the road sector.

C. Experience in China

1. Cooperative joint venture

The cooperative joint venture has been the most common method of using nongovernmental funds in toll road financing in China for several reasons: (a) strong equity investor interest in toll roads; (b) benefits from the cooperative characteristics of this type of joint venture;[4] (c) limited lender interest in toll road projects, mainly owing

[4] In a cooperative joint-venture scheme, the foreign investor receives a percentage of profit higher than its equity share during the early years of operation until its equity investment is fully recovered and less over the following years. Normal equity joint ventures are less attractive because there is no such preference for foreign investments.

to unresolved problems of risk allocation; and (d) the absence of debt service coverage requirements. Its primary disadvantage is its high cost to road users and to the economy. Equity investors require a higher rate of return than lenders and seek to obtain this from road users through higher tolls, reducing the net economic benefits from projects. The current expected rate of return on cooperative joint venture equity for road projects in China is about 18 per cent. ADB facilitated the development of cooperative joint ventures in Guangdong, Hebei, Hunan and Sichuan provinces by investing through China Assets Holding Limited and DeMat TransAsia Holdings Limited through the Asian Infrastructure Fund (see table 6).

2. Securitization

Securitization through an initial public offering (IPO) can benefit from cash flow accruing at the operating entity level as well as at the project level. The share of the toll road entity sold to public investors usually ranges from 20 to 40 per cent. The advantage of this financing option is its low cost. Securitization is undertaken at the operation stage, after certain project risks have been mitigated, such as construction delays, cost overruns and initial traffic levels. An H share listing on the stock exchange in Hong Kong, China is an inexpensive modality with a high price earnings ratio[5] (6 to 17 times in 1999). B share listings on the Shenzhen or Shanghai stock exchanges are slightly more expensive, with a price earnings ratio of 10 to 15 times in 1999, which is lower and less volatile than A share listings (with average monthly price earnings ratio of about 54 times in 2000).[6] The greatest disadvantage of this financing modality is the time required to complete the regulatory formalities. In addition, in the Shenzhen and Shanghai stock exchanges, companies must have three profitable years of operation before they can be listed. Because of these issues, this modality is more appropriate as a refinancing instrument.

[5] Calculated as the stock price divided by the earnings per share.

[6] An H share listing involves the sale of shares on the stock exchange in Hong Kong, China only in foreign currency. A and B listings involve the sale of shares on a Chinese stock exchange (Shanghai or Shenzhen) in local and foreign currencies.

Table 6. Investments by private sector funds with ADB holdings

Investment no., fund name	Investee/projects	Equity (millions of dollars)
7072, China Assets Holdings Ltd. (CAHL)	Zhongshan Dongfu Road and Bridge Company Construction and operation of a dual Class II highway between Dongfeng town and Fusha town (17 km) in Zhongshan City, Guangdong Province	9.19
	Zhongshan Nangang Road and Bridge Company Construction and operation of a dual Class II highway between Fusha town and Gangkou town (11 km) in Zhongshan City, Guangdong Province	6.01
7101, Asian Infrastructure Fund (AIF) through DeMat TransAsia Holdings Limited	Hebei Province: 15 per cent of the Shijiazhuang-Taiyuan (Shitai) expressway (69 km), jointly owned and managed by five cooperative joint ventures established with the Hebei Provincial Highway Development Company Limited, one of Hebei Provincial Communications Department's wholly-owned subsidiaries	71.28
	Sichuan Province: 13 per cent in a cooperative joint venture with a company affiliated with the Sichuan Provincial Communications Department to construct, operate, and maintain the Chengdu-Mianyang expressway (90 km) and adjacent Class I and Class II tollways (52 km). Hunan Province: 90 per cent in cooperative joint venture with the Xiangtan Municipal Government to operate an existing bridge and build a new one	–
7115, Asian Infrastructure Development Co. (AIDEC)	Tianjin-Shugang Highway Company: Upgrade and operate a 40 km three-lane dual carriageway between Tianjin City and Tanggu Port under a 25-year build-operate-transfer concession	36.20
	Total investments	**122.68**

Source: ADB estimates.

Since 1995, 15 Chinese expressway companies and infrastructure developers have been listed on the stock exchanges in Hong Kong, China; Shanghai and Shenzhen.[7] Two of these projects were financed by ADB.[8] After three years of profitable operations, the Jilin Provincial Expressway Corporation[9] established the Northeast Expressway Co., Ltd.[10] by securitizing the future toll revenues of the expressway. The company went public on 10 August 1999 offering 25 per cent of the total shares on the Shanghai stock exchange as an A share listing. The issue price was Y4.00 per share and the trading prices ranged between Y4.92 and Y6.40 after listing. A price earning ratio of 38 was achieved during 2000. ADB helped review the IPO proposal and revenue projections of the corporation for this transaction. The Hunan Expressway Project was completed in November 1996 and one of the project components, together with other toll roads and bridges, was listed on the Shenzhen stock exchange, B share section, on 28 January 1999. Because of a stock split in May 1999, earnings per share have decreased slightly, while the market capitalization has reached Y2,629 million. The average price earning ratio was 30 in 1999.

3. Revenue bond financing

Revenue bond financing involves the sale of rated notes backed by a pledge of an entity's cash flow sources. This is a relatively new highway financing modality in Asia. In August 1996, Zuhai Municipality in Guangdong Province completed a landmark entity-level revenue bond financing, which raised $ 200 million from investors in the United States of America for the Zhuhai Highway Company Limited. The main problem of this financing option is the weak regulatory

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7 These are: Anhui, Jiangsu, Shenzhen, Sichuan, Zhejiang Expressways and Cheung Kong, New World, and Road King Infrastructures, in Hong Kong (H shares); Northeast (Jilin) Expressway in Shanghai (A shares); Ganyue, Guandong, Hainan, and Hubei Expressways in Shenzhen (A shares); and Hunan and Guangdong Expressways in Shenzhen (B shares).

8 Loan 1262-PRC: *Jilin Expressway Project*, for $ 126 million, approved on 9 November 1993, and Loan 1261-PRC: *Hunan Expressway Project*, for $ 74 million, approved on 9 November 1993

9 Wholly owned subsidiary of the Jilin Provincial Communications Department.

10 Founded jointly by the Jilin and the Heilongjiang Provincial Expressway Corporations and a subsidiary of MOC.

framework, which results in a difficult and time-consuming procedure for securing the necessary approvals. The United States dollar rate of return required by investors in an entity-level revenue bond was in the 10-15 per cent range for a China issue in 1999.

4. BOT structure

Although the BOT approach has been widely used in the power generation industry, it has met with only limited success in the road sector, except where the project is a natural monopoly, such as a bridge or tunnel. While different financing methods can be applied to BOT projects, it is an important model that differs from traditional government-sponsored structures by transferring risk to the private sector. It relieves the government of funding responsibility, but makes the investment less attractive to private investors in a high-risk environment. In China, the State Development Planning Commission has developed a policy and regulatory framework to facilitate the formulation and award of BOT projects, but this has yet to be formalized through government decree. One of a few road projects in China attractive enough to be developed under a BOT scheme is the Tianjin-Shugang Highway project to upgrade and operate a 40 km three-lane dual expressway between Tianjin City and Tanggu Port, under a 25-year concession. ADB holds an equity stake in the Tianjin-Shugang Highway through the Asian Infrastructure Development Company. Although ADB attempted to help develop the Yangjiang-Dianbai expressway in Guangdong Province on a BOT basis, the feasibility study concluded that the project was not financially viable for this modality because of weak performance criteria and high risks associated with the traffic forecast.

The initial model BOT projects were structured to have 100 per cent foreign financing. The Asian currency turmoil made investors and commercial lenders cautious about infrastructure projects that use foreign currency debt in construction but generate revenues in local currency. Part of ADB's policy dialogue has been to encourage the Government to allow BOT sponsors to arrange some domestic financing should they so wish. Other potential risks for BOT projects are lower-than-expected levels of traffic and revenues in the early years of operation, construction cost overruns, implementation delays and land acquisition problems. The

current lack of legal and regulatory clarity has also increased the perceived risk of the BOT approach, making it unattractive for most road projects in China. The model based on cooperative joint ventures is rather costly and hence feasible only for projects with high financial rates of return.

D. ADB investment in private sector funds

ADB has holdings in several funds that invested about $ 122.7 million in equity in seven road projects, mostly on the eastern coast of China (see table 6). The projects in which ADB has participated are well established in the market with satisfactory track records and quality assets. As such, most are operating profitably, although traffic flows are generally below those forecast. Future financial returns are expected to improve as the projects mature; most are still in the early stages of operation when revenues have not peaked. In an exception to the generally good performance, revenues are much lower than anticipated in one case because of inadequate toll collection arrangements and a competing road with similar travel distance and time.

E. Key issues in private sector participation[11]

1. Regulatory framework

The Government has made substantial progress in issuing a series of laws, regulations, notices and circulars relevant and critical to private participation in infrastructure, such as the Bidding Law, Unified Contract Law, Security Law, Project Finance Measures and the BOT Circular. However, much still needs to be done to further strengthen the legal system. Major constraints perceived by investors include lack of transparency in the legal framework in general, inconsistencies among various laws and regulations, inconsistent implementation and enforcement, a lengthy and unpredictable approval process and subsequent regulations.

[11] This section is largely drawn from findings of ADB-financed TA 2952-PRC: Corporatization, Leasing, and Securitization in the Road Sector, Consultant's Final Report, December 2001.

The regulatory framework relevant to private participation in infrastructure involves a series of laws, regulations, notices, circulars and implementing rules issued by agencies at the central and local levels. The underdeveloped legal system, however, leaves many important and routine decisions to administrative authorities, often with inconsistent results. For instance, three main regulations granting operating rights for toll roads[12] appear to have inconsistencies and contradictions among them.

The 1995 BOT Circular is considered to be a major breakthrough to clarify some unanswered issues concerning private participation in infrastructure by previous laws, such as concession terms, granting authorities, currency convertibility and procurement. Nevertheless, the Circular was drafted as a limited experiment and requires further refinement. There are various options available for the Government to move forward: (a) to tighten existing laws and procedures without passing specific legislation on private sector participation; (b) to pass the BOT Circular into law; and (c) to pass a new framework law covering a broad range of models and recommend the framework law as the most effective way. The framework law is expected to:

(i) Establish a framework of laws specifically for projects involving the private sector, clarifying such inconsistencies by not repeating other laws but by referring to them as they develop or by referring to the preferred law;

(ii) Apply to all projects involving private participation in infrastructure, covering concessions, management and leasing contracts, BOT projects and so on;

(iii) Emphasize the development and protection of basic contract rights for projects involving private participation in infrastructure;

(iv) Provide flexibility so that project terms are left for negotiations between the granting authority and the investors. (i.e., the BOT Circular prohibits domestic

[12] The Highway Law, the Notice of Strengthening the Administration of Transfer of Infrastructure Assets, and Measures of Transfer of Operating Right of Highway with Compensation.

financial and non-financial institutions from providing any guarantees for project financing);

(v) Refer to model contracts to facilitate implementation, but should not oblige parties to use those contract terms;

(vi) Provide protection and certainty to existing investors;

(vii) Be consistent with relevant sector laws.

2. Approval processes

The approval processes of projects with private sector participation are cumbersome. The official review and approval process for infrastructure project generally has three stages: project approval stage, project company approval stage and operational approval stage. A basic project approval process for a pilot BOT project requires eight approvals with various agencies, with each step further requiring smaller approvals, consultations, and filings with various agencies. For non-BOT projects or projects initiated by local governments, the approval process is more complex, requiring 12 approvals from various agencies, both central and local. Then, the next step to establish a project company could require additional 18 approvals, followed by more than 10 other approvals at the stage of operational approvals. In short, to prepare an infrastructure project could require up to about 40 approvals altogether. The approval process continues even after the project starts, through site inspections from numerous local government agencies. International experience shows that cumbersome current approval processes can be streamlined with commitment from the highest possible level of the government.

3. Institutional capacity

Capacity-building of local government will be essential for successful formulation of infrastructure projects with private sector participation. Increasing private participation in infrastructure has put pressure on local governments to strengthen their capacity as granting authorities. Owing to the tender approach taken for BOT projects, local government is required to do a substantial amount of preparation work, including preparation of bidding documents, as opposed to the joint

venture approach in which local governments can rely on foreign partners for the most time-consuming and challenging task of formulating the project.

F. Alternative approaches to road infrastructure financing

1. Corporatization

The process of corporatization in China is well established and it has happened, among other places, in 9 out of 13 provinces where ADB is involved in the road sector, i.e., Chongqing, Guizhou, Heilongjiang, Hunan, Jilin, Shanxi, Shaanxi, Sichuan and Yunnan. While the corporatization step is not overly complex, in psychological terms it poses significant questions to the Government which require decisions and compromise and it is to that process of decision and compromise that the following comments are mostly directed.

(a) Legal status

The process of corporatization needs official support – particularly to create a share limited company. Because the Government is allocating assets, a formal permission to proceed allows the corporatization team to allocate shares and define share ownership. Authority to create a new share limited company must come from the provincial communications department (PCD) who also must usually agree to a reduced shareholding in the new company. The official authority to proceed is therefore an important step and commits PCD to the overall process and before any work can be done, this official support must be written as a formal document. The document normally authorizes the corporatization team to begin the process and it also designates members of the Government and others as members of the team.

The issuance of an authorization letter, however, does not guarantee the autonomous operations of the expressway company. There is a need for PCD and the expressway company to make a formal agreement, which would spell out rights and obligations of the PCD and the expressway company. Such an agreement will ensure the legal autonomy of operations, encourage the establishment of road facility

performance indicators and facilitate future refinancing of road sector assets. This approach was adopted for the first time under an ADB-financed road project[13] in Shaanxi Province in 2001.

(b) Scope of corporatization

The scope of corporatization is currently too limited. Larger corporations should move away from the norm of "one road one corporation" to "one route one corporation". Even multi-provincial corporations should become the norm in the future. As corporate units aim to enter the securitization market, it will become even more important for them to offer a package of assets that limits risk and offers a good cash flow potential. This may mean combining an existing toll road company with a new company into a combined package. It also may mean leaving a well-recognized name behind and choosing a new name for the new corporation.

(c) Founders

A share limited company needs a minimum of five founders. PCD and the Ministry of Communications (MOC) have traditionally owned the expressway corporations as a single shareholder. The tendency is to try to find five founders who are controlled by PCD or by MOC. Normally PCD likes to keep as much of the ownership as possible because most of the money has been provided through PCD/MOC and because PCD prefers to keep tight control of the new corporation.

However, they should try to move away from this concept even though it may be difficult to find four other founding shareholders. One option is to capitalize the value of land and resettlement costs and offer shares to the municipalities through which the road passes. Another option is to offer shares to domestic banks in exchange for reduced debt or to major clients such as mines, refineries or shipping companies who may be heavy users of the road.

[13] Loan 1838-PRC: *Shaanxi Roads Development Project*, for $ 250 million, approved on 30 August 2001.

PCD also tries to maximize its shares. In some corporatizations PCD retains more than 90 per cent of the shares. In multi-road corporations, it should be possible to reduce the effective PCD ownership. Generally, the share limited company should target a share distribution which results in shares for other organizations of at least 20 per cent, with PCD retaining not more than 80 per cent.

(d) Debt/equity split

This is a decision variable that is part of the corporatization process and leads to a lot of debate on what should be the debt to equity ratio. Because most of the money for current roads comes from the Government in one form or another, the investment by the Government can be considered as equity or debt. It is typical to keep the equity high and the debt low, if at all possible. The tendency in China is to limit debt and to maximize equity. This leads to a low cost of capital operation, little interest obligation and maximized profit. While this may be possible in the short term, in the longer term, a fully private corporation is unlikely to have no debt load. Strong corporations are not heavily in debt but some debt is normal.

Debt financing in China is significantly less expensive than equity financing – if a reasonable return on equity is factored into the securities equation. In developing a debt and equity position new corporations should attempt to structure their sources of finance with the aim of achieving a sustainable debt and equity balance. Outside investors are looking for a minimum of 20 per cent return on blended capital. This means a high rate – usually over 30 per cent return on equity.

2. Leasing

While some leasing has occurred mainly through joint ventures, the concept of competitive leasing is virtually precluded by the approval process which requires that the corporate structure and details of the lease be fixed before approval for the lease is given by higher authorities. The end result of this process leads inevitably to a joint venture type of organization and does not allow for international competitive bidding for leases.

(a) Land use certificate

Land acquisition ultimately involves the local governments in the toll road development. Often the decision on how to allocate the payment for the land is left until after the road has been completed. This means that land acquisition may either be paid in cash or in shares in the new road depending on the interest of the local governments. The key is to ensure fairness in the payment for land and for resettlement of existing residents of the land. Up to 20 per cent of the shares may be allocated against the value of the land and resettlement costs.

Current government procedures based on the Land Administration Law govern the resettlement process. If the private sector is involved in the development of the road, these procedures may not be adequate – particularly if resettlement payments are not being made at full market value.

Obtaining the land use certificate is a potential factor in the delay of projects. Generally it may take over one or two years to obtain the land use certificate. While it is against the law to proceed before the land has been acquired, many roads are completed under a permit to use the land, rather than under a formal land use certificate. This is where the process of corporatization, leasing and securitization can be accelerated.

(b) Traffic volume and tolls

The most serious issue facing future private investment in toll roads in China is low traffic volumes. Until traffic reaches 20,000 to 30,000 vehicles per day, it is hard to justify outside investment. Many of the candidate roads for leasing in China have volumes which are too low to support the investment.

This leads to two conclusions – first, the original estimates of traffic used to justify the investments was overly optimistic; and second, the tolls charged may be stifling demand. It is clear that in some cases traffic estimates have been inflated. It is critical that the decision to invest in toll roads be made with clear eyes that include low case scenarios. In a period of massive toll road expansion it is easy to

become overly optimistic. This means that independent evaluation of toll road investment viability is critical.

Traffic is still toll sensitive. In areas where parallel non tolled roads are available, traffic levels are dramatically affected. This is the result of a number of perceptions. First, delay cost is not factored into the operating cost of most companies. It is often cheaper to pay for extra wages for a driver and extra fuel than it is to pay the toll on a faster and more convenient highway. Partly this is a reflection of poor cost accounting and partly a general perception that toll rates are expensive.

Toll rates are close to average levels of industrial countries. In a society where earnings are still far below developed world averages, this means that the real cost of tolls in China is very high. The current process of setting tolls does not aim to maximize revenue. Demand management is still not a priority of most toll road companies. More flexibility in setting tolls and creating a climate of toll acceptance will help to increase low traffic levels.

(c) Approval process

Leasing can take up to four to five years, depending on the level of approvals needed. The process needs to be made less complicated and more user friendly. Each level can demand changes in the agreement negotiated by the proponents. Ultimately, the final result may not reflect the original agreement at all.

One option would be to limit different levels to different roles. Municipalities only review those aspects which relate to municipal authority – traffic, safety, environmental quality for instance. Provinces review issues with provincial impact – network linkage, design standards, toll levels or land use certification. National level only focus on national issues – national security, ownership, or foreign exchange transactions.

The current approval process does not encourage investment, rather it impedes it. If the Government wishes to increase domestic and foreign participation in the road sector, a different approach is needed – one which fosters investment and facilitates the process of approval.

(d) Joint venture versus open lease

Provincial governments are reluctant to open leasing to the domestic or overseas market through open tender. Joint venture (JV) agreements are preferred, mainly because the JV partners come to the provinces directly and propose deals based on negotiations. Further, the current approval process requires that the terms of the business plan, the allocation of profit share, the ownership of the company and the details of the parties to the agreement be presented prior to the approval for leasing being obtained. This virtually precludes approval in principal leasing whereby a provincial government could specify all the terms of the deal in advance and then select the best bidder based on a published set of leasing terms. The final terms are not available until the final approval is given. This means that better deals my often be available through open bidding and with a wider audience but the process will need to be changed to allow this to happen.

3. Securitization

While securitization is really the tertiary step in the private finance spectrum, in some ways it is the best understood and most clearly defined. This is largely because the securities regulations have been designed to specify clearly under what conditions and with what steps firms may choose to enter the securities market in China. The first part of the securitization process is corporatization and the comments and recommendations made earlier regarding corporatization apply equally to securitization. There are areas for improvement in the securitization preparation by toll road companies in China.

(a) Asset valuation

Roads are built for a number of reasons – mainly falling into the categories of economic or financial. Economic benefits such as regional development can not normally be factored into the "commercial" value of a road. The process of commercial leasing automatically values the assets based on their commercial objective, not their economic objective. For most of China's toll road companies, the sunk cost of the construction and the value of the land are used to determine the asset value. Using this measure, the return on assets is very low – 5 or

6 per cent. But in some companies, the fixed asset value is reassessed to set a "use value" to determine what value the assets have compared to other productive assets. On this basis a threshold return level (say 20 per cent return on capital) is set and the assets are reassessed based on the actual earnings needed to generate that threshold level. This usually leads to a significant downward value for the assets. This process is only useful if the assets are to be sold or if the project is to be securitized. New investors are interested in buying into a financially sound business, not one where the assets carry an inflated value.

(b) Profitability of corporations

Keeping profitability realistic is important. It is possible to manipulate the profit by changing the debt to equity ratio. The suggestion to maintain a debt to equity ratio of up to 2 will ensure that the toll operation is carrying a modest amount of debt. Some earlier securitizations have aimed at a price earning ratio of over 30. The current target level is 22. However, in the longer term, using manipulated profit to justify a very high price earning ratio is dangerous. The long-term price earning ratio for toll roads likely to be less than 15 as the operation begins to reflect the true linkage to the longer term development of the Chinese economy.

CONCLUSION

The increasing infrastructure financing needs in China require a shift from the conventional financing modes such as commercial bank loans, international or bilateral loans, government grants and export credits toward private sector participation. Initial public offerings of expressway companies on the stock exchange have demonstrated that such investments can be financially attractive under certain circumstances. Bond issues are another suitable tool for infrastructure projects owing to the long-term and stable earnings stream of such projects. Revenue bond issues by a public agency that owns the asset have an advantage, as the public owns the facilities, but the private investors finance it. However, any capital market instrument requires an adequate registration process and public disclosure and a strong credit standing, and the legal and regulatory framework in China in this matter needs strengthening. Expressway corporations may also consider leasing

schemes, which would have considerable potential if combined with tax incentives for the lessees. This will ultimately improve road sector efficiency and reduce the burden on the government budget.

MARITIME AND AIR TRANSPORT SERVICES: INDIA'S APPROACH TO PRIVATIZATION

Arpita Mukherjee* and Ruchika Sachdeva**

ABSTRACT

As part of a broader reform programme, the Government of India embarked upon a privatization programme in the 1990s to improve the performance of the transport sector and speed up the investment process in the transport sector. This paper provides an overview of government policies and initiatives that have been taken to promote private participation in the maritime and air transport subsectors and an assessment of the progress made so far.

There has been some success in attracting private sector involvement in these two subsectors. This paper has identified some issues and concerns and makes some suggestions that would further increase the level of private participation. The paper draws some conclusions in the light of experience gained from the privatization initiatives in the maritime and air transport subsectors.

INTRODUCTION

The linkages between international trade and the transport network are obvious. An efficient transport system can boost trade and greater volume of trade can, in turn, create demand for investment in the transport network. It is now widely acknowledged that efficiency in the transport sector has major spillover effects on the competitiveness of both goods and services. Competition and increased efficiency in maritime transport services, resulting in lower freight rates, contribute

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directly to a country's international competitiveness. Similarly, the development of air transport services is crucial for the sustainable development of trade and tourism. This sector acts as an economic catalyst by opening up new market opportunities, moving products and services with speed and efficiency. The quality of the transport network has direct implications for the inflow of foreign direct investment (FDI).

In the past, the requirement of large-scale investment, long gestation periods, uncertain returns, associated externalities together with social objectives such as consumer protection, welfare and equity have resulted in government monopoly in transport services. In many developing countries, the Government owned, operated and financed the transport sector and success and failure in the provision of such services was largely a story of government's performance. This picture is rapidly changing with globalization and the liberalization of national economies. Increased commercialization and growth of international trade has led to considerable pressure on the operating environment of the existing transport infrastructure, forcing it to adapt new, improved and more reliable technology. Commercialization has also enhanced competition among trading nations to increase their share in the world's trade. For instance, with increasing size and sophistication of ships, container ships now make only a few calls in three or four harbours at each end of the trade while the rest of the traffic is served by small feeder ships. This has increased the competition among neighbouring harbours to develop as "hub" ports catering to large container ships. Governments all over the world are finding it increasingly difficult to finance the investment required to sustain the growth of transport infrastructure. On the other hand, globalization has given birth to large multinational corporations and alliances that have the willingness, financial strength and technical know-how to operate and manage the advanced transport network. This has created a unique situation whereby countries, which were once closed-door, are opening-up their corridors for privatization and foreign investment.

The Indian aviation and maritime transport sectors have not been an exception to this trend. Prior to the 1990s, the Government was the main provider of these services and there were various restrictions on private participation. During that period, the performance of these sectors was marked by monopoly-induced inefficiency and low

productivity. In fact, in both of these transport services, India's share in world trade had been steadily declining. In the 1990s, when India embarked upon an ambitious reform programme, the demand-supply gap in transport infrastructure became more pronounced. The need of the hour was to rectify the infrastructural bottlenecks to sustain the reform programme. It is at this juncture that the Government announced various reform measures in air and maritime transport services, including privatization. It was expected that privatization would increase efficiency through competition, reduce the financial constraints and speed up the process of adaptation of new technologies.

The following section will provide a broad overview of maritime and air transport services in India. It will critically analyse the policies and developments in these sectors since the 1990s. The subsequent section will suggest various regulatory, fiscal and other reforms which could facilitate the privatization process and improve the overall efficiency, productivity and global competitiveness of the sectors.

I. AN OVERVIEW

A. Maritime transport

Maritime transport is by far the main mode of international transport and over 90 per cent of India's trade volume (77 per cent in terms of value) is moved by sea. The Indian peninsula, situated in the Indian Ocean, is also strategically located between the Atlantic Ocean in the west and the Pacific Ocean in the east, with a 5,560 km long coastline, and 12 major[1] and 148 operable minor and intermediate ports. India now has the largest merchant shipping fleet among the developing countries and ranks seventeenth in the world in shipping tonnage. Indian maritime services sector not only facilitates the transport of national and international cargoes but also provides a variety of other services such as cargo handling services, ship repairing, freight forwarding, lighthouse facilities and training of maritime personnel.

[1] The 12 major ports are: Calcutta (including Haldia), Paradip, Vishakapatnam, Chennai, Ennore and Tuticorin on the east coast and Cochin, New Mangalore, Mormugao, Jawaharlal Nehru, Mumbai and Kandla on the west coast.

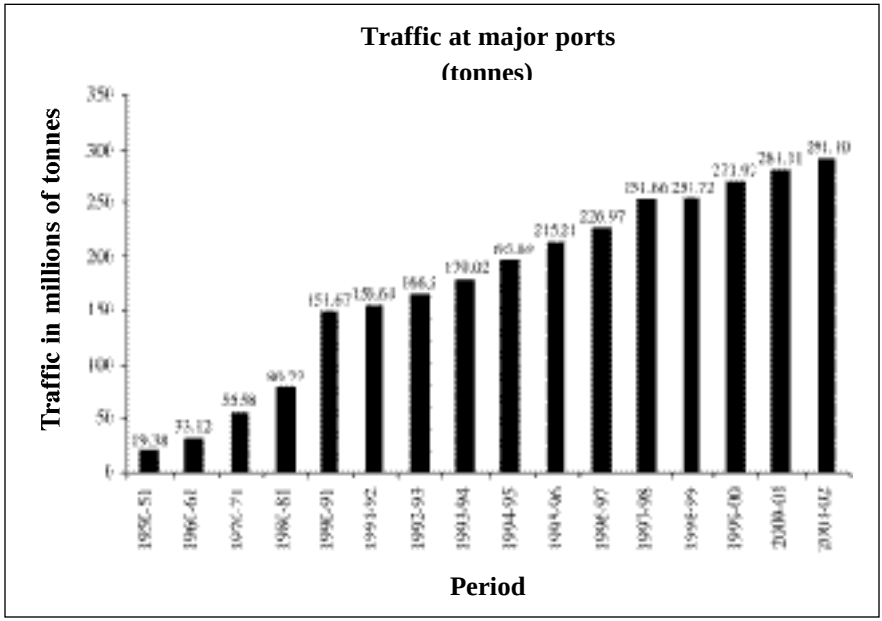
The maritime transport system falls under the purview of the Ministry of Shipping. The shipping industry is governed by the Merchant Shipping Act, 1958, and the Director General of Shipping is the regulatory authority for all activities related to shipping. The salient features of India's shipping policy are the promotion of national shipping to increase self-reliance in the carriage of country's overseas trade and protection of the interest of shippers. India's national flagships provide an essential means of transport for the import of crude oil, petroleum products, coal and fertilizer, export of iron ore, and exports and imports of various general (liner) cargoes. National shipping also provides for a second line of defence in times of war and emergency and contributes significantly to the foreign exchange earnings.

Even before the 1990s, the shipping industry was fairly liberalized and there were no major restrictions on the entry of private shipping companies. Indian shipping, as it exists today, is marked by the presence of a few large and medium sized national shipping companies and a host of private players that together carry around 30 per cent of the country's overseas trade. On the eve of independence in 1947, India had only 60 vessels with a tonnage of 0.192 million gross registered tonnage (grt). By December 2001, these figures increased to 555 vessels and 6.91 million grt respectively.[2] Nevertheless, this growth lagged far behind the proposed growth target of 9 million grt for the Ninth Five-Year Plan (1997–2002) and the national flag carriers are fast loosing their share of trade to major global players.

From time to time, the Government has announced various measures to support the growth of the domestic shipping industry. Government-owned/controlled cargo is channelled by the chartering wing of the Ministry of Shipping, "Transchart". As per this policy, the first right of refusal for carriage of such cargoes is given to Indian vessels. More recently, in the Union budget 2002-03, the Government offered various fiscal incentives for the modernization and expansion of fleets. These include exemption of shipping companies from the minimum alternative tax if they transfer an amount that is twice the aggregate of the paid up capital, general reserve and share premium reserve to a special account meant for ship acquisition.

[2] Ministry of Shipping, Annual Report, 2001-02.

Unlike shipping, prior to the liberalization, the port sector had largely been a public monopoly. Major ports are under the Ministry of Shipping and are governed by the Major Port Trusts Act, 1963. Intermediate/minor ports are administratively under the respective state governments and are governed by the Indian Ports Act, 1908. Major ports cater to the bulk of traffic (around 75 per cent in 2001). The traffic through major ports increased from around 19.4 million tonnes in 1950-51 to 291.1 million tonnes in 2001-02. This growth has not been uniform. Figure 1 shows that in the first 30 years (1950-51 to 1980-81) the increase in traffic was only 60 million tonnes. After the liberalization in the 1990s, there was a sudden spurt in traffic, which grew by 130 million tonnes in the 10-year period, 1990-91 to 2000-01.



Source: Ministry of Shipping, Government of India.

Figure 1. Traffic at major ports

Increase of traffic between:

1950-51 and 1980-81 (30 years) [5 ports]	– 60 million tonnes
1980-81 and 1990-91 (10 years) [10 ports]	– 71 million tonnes
1990-91 and 2000-01 (10 years) [11 ports]	– 130 million tonnes

The sudden increase in traffic in the post-liberalization period brought to light the capacity constraints, inefficiencies and low productivity of the Indian ports. In addition to privatization, various steps were taken by the central and state governments to improve port performance. Some of these steps include:

(a) The power of the Port Trust Boards to sanction projects was increased to Rs. 500 million in the case of additional/new investments and to Rs. 1 billion in the case of replacement/renewal of assets;

(b) An independent Tariff Authority of Major Ports (TAMP) was set up for fixing and revising the port tariff;

(c) The Major Port Trust Act was amended to enable major ports to enter into joint ventures with minor ports;

(d) A Maritime State Development Council was constituted under the Chairmanship of the Union Minister of Shipping to have an integrated approach to development of major and minor ports;

(e) The major ports were also allowed to enter into joint ventures with foreign ports and foreign companies;

(f) An Empowered Committee on Environmental Clearance (ECEC) was constituted in the Ministry of Shipping to provide simplified and transparent guidelines for environmental clearance.

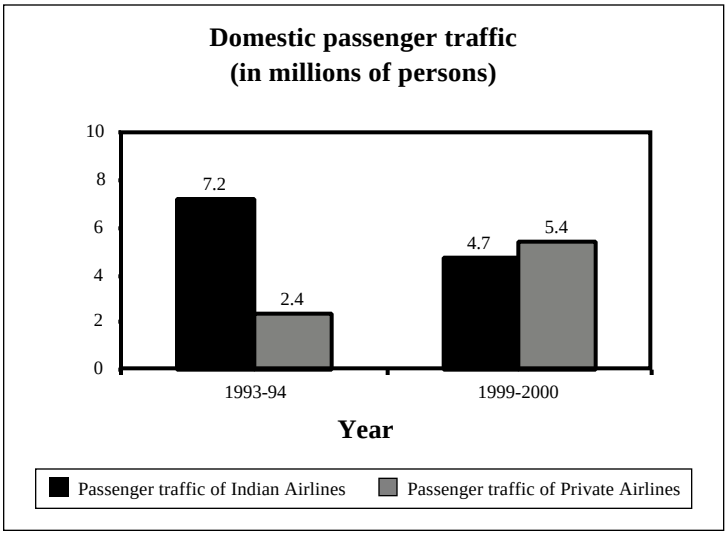
B. Air transport services

The Indian air transport services were initially developed under private initiatives. However, in 1953, under the Air Corporation Act, the operation of scheduled air services was made a public monopoly. This monopoly lasted for almost 40 years until it was repealed by the Air Corporations (Transfer of Undertaking and Repeal) Act, 1994. At present, the air transport sector is fairly liberalized with Air India and Indian Airlines – both public sector undertakings – providing international air services together with a host of foreign carriers. Apart from Indian Airlines some private airlines, such as Jet Airways and Sahara, operate domestic air services. Infrastructure facilities at airport terminals are provided by the Airport Authority of India (AAI),

a statutory body under the Ministry of Civil Aviation. The Ministry of Civil Aviation formulates national policies and programmes for the growth, development and regulation of civil aviation. The Directorate General of Civil Aviation (DGCA) is the principal body under the Ministry for the regulation of air transport to/from/within India in accordance with the provisions of the Aircraft Rules, 1937, bilateral and multilateral agreements with foreign countries and the policy pronouncement of the Government. Security related issues are handled by the Bureau of Civil Aviation Security.

Although air cargo accounts for less than 5 per cent of the total volume of cargo exported, air transport services play a crucial role in the transport of high-value items and capital goods. Growth of the tourism industry is directly related to the performance of the aviation industry since more than 92 per cent of foreign tourists arrive by air. The country has around 449 airports/airstrips, of which only 61 are in an operational state. There are 12 international airports but the top 5 of them (Delhi, Bangalore, Mumbai, Chennai and Kolkata) together handle over 70 per cent of total passenger traffic and 85 per cent of cargo traffic. These figures suggest an uneven flow of traffic resulting in a lack of infrastructure at certain places and, at the same time, a massive underutilization of the existing network of airport infrastructure.

In 2001, Air India and Indian Airlines had fleet sizes of 27 and 50 aircraft, respectively. The operating performance of both these airlines is below international standards and they have been showing net operational losses for successive years. In fact, Air India had to pull out of many lucrative routes and currently the Middle East is the only major destination. On the domestic front, with the advent of private players Indian Airlines is fast losing its market share to private airlines (see figure 2) and in 2002 its share of domestic traffic was around 40 per cent. On the whole, the Indian civil aviation sector is marked by lack of funds for modernization and expansion, low productivity, underutilization of resources, low fleet base, overmanning, a limited international network and unremunerative yields.



Source: *Air Transport Statistics, v*arious issues, Ministry of Civil Aviation.

Figure 2. Domestic passenger traffic

II. DEVELOPMENTS IN THE 1990s

A. Maritime transport services

1. Shipping

Liberalization and reforms of the 1990s made the environment of shipping more competitive – both in terms of cargo and resource mobilization markets. In such an environment, only those industries that have developed a competitive advantage can thrive. Indian domestic lines, both private and public, which were so far protected by government cargo reservation policies and had outdated fleets, found it extremely difficult to face international competition. As a consequence, although the volume of overseas trade more than doubled in the 1990s, the share of domestic lines steadily declined. Major policy changes which affected the shipping industry were the relaxation of the cabotage law and cargo reservation policy, whereby foreign flag ships were allowed to operate on a case-by-case basis. Foreign ships calling at Indian ports no longer required a license for overseas trade.

The Government did not remain a mere spectator. To enable the domestic industry to mobilize resources and facilitate the acquisition of funds, the Government made several amendments to the Merchant Shipping Act and simplified the regulatory procedures for raising resources in order to facilitate the acquisition of new/second hand vessels at competitive prices. The Government also granted automatic approval for foreign direct investment up to a limit of 74 per cent and non-resident Indians (NRIs) were permitted to invest up to 100 per cent with full repatriation benefits.

In the past, Indian ships had to be repaired at Indian yards, which were not competitive either in terms of costs or time. This restriction was removed and shipping companies – both private and public – can now get their ships repaired in any shipyard without seeking prior approval of the Government.

However, these measures did little to boost the morale of the shipping industry and revive the recessionary trends. Shipping is a capital-intensive industry and in spite of the above-mentioned reforms, both the private and public players have not been successful in mobilizing the requisite funds and run a profitable operation. The shipping industry has blamed the Government for this. Industry representatives have repeatedly pointed out that unlike many developed countries, the Indian industry is not subsidized, nor does it have the status of an infrastructure industry or export industry which would enable it to enjoy the tax benefits applicable to such industries. The Indian shipping industry is facing a much higher tax regime than its international competitors. The industry has to pay a corporate tax based on profits whereas India's major trading partners have implemented a tonnage tax regime.

On the whole, the domestic shipping industry – where the public and private sectors had coexisted under a protective umbrella prior to the liberalization – did not gain much in the post-liberalization period. Shippers, on the other hand, were the main beneficiaries. They had access to better quality services at lower/competitive rates.

More recently, the Government is considering the disinvestment of Shipping Corporation of India (SCI), a public sector undertaking,

which owns 45 per cent of the country's fleet. The Government, which owns a 80.12 per cent stake in SCI, initially planned to offer 40 per cent of its stake to oil public sector units (PSUs) and refineries. But since the oil companies did not show any interest, the Government has now decided to sell 51 per cent of its stake in SCI through an open offer. Out of this 51 per cent, a foreign investor can pick up a maximum of 25 per cent. The Government also proposes to sell 3 per cent of the equity to employees of SCI, bringing its stake down to 26 per cent. Three disinvestment routes have been offered to interested bidders – the bidders can either form a consortium, or a special purpose vehicle (SPV) or have a group affiliate company pick up the stake. Since the disinvestment process has yet to be concluded, it is too early to discuss the Government's disinvestment policy. Nevertheless, some of the bidders have raised certain concerns. The bidders fear that since the Government will continue to have a 26 per cent stake after disinvestment, the new owner may find it difficult to restructure the company on issues such as tonnage stripping and reduction in the workforce. There are also unresolved issues concerning SCI's stake in its two joint ventures – Irano Hind Shipping Company Limited and Greenfield Holding Company (for LNG[3] transport). With Greenfield already in a cash crunch, bidders want SCI to exit its two joint ventures before disinvestment. Although the Government has stated that SCI would continue to partner both ventures, it remains to be seen whether there is a change in decision to clinch a better deal.

2. Port facilities

With the opening-up of the economy, resulting in a growing volume of international trade, it became necessary to upgrade and modernize the port infrastructure. To encourage private participation in port projects, the Government issued a comprehensive guideline for private participation in major ports in 1996. The following areas have been identified for private sector participation:

(a) Leasing out the existing assets of the ports;

[3] LNG is liquefied natural gas.

(b) Construction and operation of container terminals, multi-purpose cargo berths, and specialized cargo berths, warehousing and storage facilities, tank farms, container freight stations and setting up captive power plants, etc.;

(c) Leasing of equipment for cargo handling and leasing of floating rafts from the private sector;

(d) Pilotage;

(e) Captive facilities for port based industries.

The policy recommended that private participation in port projects should be through a competitive bidding and on a build-operate-transfer (BOT) basis. The policy also stated that the concerned Port Trust would not give any guarantee for financial returns or expected tariff to the private sector. In parallel, the port sector was opened to foreign investment. Foreign equity participation was allowed up to 74 per cent through an automatic route in construction activities in ports and harbours and up to 51 per cent in support services such as the operation and maintenance of piers.

Unexpectedly, this policy received a lukewarm response. In the next few years, the Government juggled with a series of policies and amendments to the existing ports and shipping acts. The next major policy initiative was the setting up of TAMP – the independent tariff regulatory of major ports. To lure foreign investment, the Government further liberalized the foreign investment policy, allowing 100 per cent FDI in construction of ports and harbours through the automatic route. Foreign investors were also allowed to enter into joint ventures to develop port facilities. The Ninth Five-Year Plan, which began in 1997, placed emphasis on private participation in both major and minor/intermediate ports. Additionally, a series of fiscal incentives were extended to lenders and developers of port projects. For instance, a 10-year tax holiday was announced for the development of ports. This can be used in the first 20 years of operation. Import duties on equipment have been significantly reduced. The Government also granted a tax concession of 40 per cent to financial institutions on income from financing port projects and earnings from funds invested in infrastructure projects are also exempted from income tax.

Subscription to equity shares and debentures issued by infrastructure companies are now eligible for a 20 per cent income tax deduction up to a limit of Rs. 70,000 a year.

The Government's effort to attract private investment has not all been in vain. Many new port development projects have been sanctioned in the 1990s. A new major port, Ennore, near Madras was sanctioned in April 1993. This project was financed by the Asian Development Bank, which sanctioned US$ 150.15 million for the project. The Chennai Port Trust has developed the Ennore Port under a "landlord" concept, i.e., the common infrastructure is developed by the port, while the berths and equipment therein are financed by private developers on a BOT basis. The Ennore port started functioning from January 2001. In 1997, P&O Ports Australia was awarded the contract for setting up a new container terminal in Jawaharlal Nehru Port Trust (JNPT). In recent years, the same investor has won the twin contract to develop container terminals at Chennai and Kochi on a BOT basis. In 1998, another global player, the Port of Singapore Authority, was given the contract for developing and maintaining the container handling facilities at Tuticorin. The domestic investors are not far behind. Gammon India has tied up with Protia Management Services of the United Kingdom of Great Britain and Northern Ireland to form Vizag Sea Ports Limited, which will construct two new multi-purpose berths at the port.

In addition to the steps taken by the central government, governments of the coastal states have also taken initiatives to develop the minor ports within their jurisdiction. All maritime states have issued policy statements, which highlight the various incentives offered by the respective state governments for investment in port projects. Various development projects through private participation have been sanctioned in the States of Gujarat, Maharashtra and Andhra Pradesh. The Pipavav and Mundra ports in Gujarat have been developed as joint ventures between the Gujarat Maritime Board (which has a 26 per cent share), private sector (25 per cent) and the public (49 per cent). P&O Ports Australia has been awarded the contract for operating container terminals in Vadhawan (Maharastra).

An analysis of private sector participation in port projects reveals a clear trend – private investors are more interested in the operation of

container terminals and in the development of minor/intermediate ports. This is mainly owing to the fact that most private and foreign investors prefer to invest in projects with short gestation periods and strong revenue streams.

It is often argued that in comparison to other Asian countries such as China, India has been far less successful in its privatization drive and the whole process has been slow and hesitant. For instance, it has taken three years to finalize procedures and invite tenders for privatization of JNPT container terminal. Case studies of some of the BOT port projects in India[4] show that private investors have not responded as affirmatively as expected owing to the tendency of the Port Trusts to demand an unreasonable share of anticipated earnings, especially during the early stages of operations. Port projects have long gestation periods and require substantial investments. The revenue realization is delayed until the completion of the projects and may not be adequate to cover all costs, particularly in the initial years of operation. There are several flaws in the BOT concession agreements. The main drawback is that the investor's investment is not backed by a legal statue, although it is a common practice in South-East Asian countries and the United States of America. Furthermore, the agreement does not take into account the geo-technical and socio-commercial features of the individual ports so that there could be some concessionary adjustments and preferential incentives for development of ports in backward areas. The agreements also state that assets financed on a BOT basis will revert free of cost to the Port Authority at the end of the concession period. This is a possible deterrent to continuous upgrading and modernization of facilities during the term of the concession.

Private investors in major ports do not have the autonomy to fix their own tariff subject to market conditions, since tariffs in these ports are regulated by TAMP. This acts as a constraint on the operational efficiency of the projects. Foreign investment in cargo related projects is scarce since TAMP does not allow cost recovery through forex-linked tariffs.[5] Also, private investors at major ports cannot implement their

[4] Bennett and Eswaran (1996).

[5] However, container handling charges can be levied in foreign currency and are treated as vessel-related charges, resulting in the keen interest shown by foreign companies in containerization projects in the country.

own employment policies as the labour hired by the privatized firms in privatized berths are subject to labour laws as defined by the Ministry of Labour. The complexity of rules, lack of a clearly defined action plan and the long and unpredictable approval process have often made the projects commercially non-viable.

A major constraint in the process of privatization of minor ports has been the lack of adequate infrastructure facilities linking the ports and the hinterland. In many minor ports, the investors themselves have taken initiatives to set up the rail and road connectivity. For instance, in January 2000 Pipavav Port formed a joint venture with Indian Railways to set up a rail connection to the main network.

Despite the various fiscal incentives offered by the Government, the financing of port projects is still clouded with a lot of doubts. The debt-equity ratio of 60:40 for financing port projects is more conservative than that of other sectors. This is because there is no traffic guarantee. As a result, banks and financial institutions are somewhat wary to finance this sector.

If one looks at the impact of liberalization and privatization on port productivity there is no doubt that the productivity of Indian ports has increased manyfold since liberalization. The average ship turn around (ASTA) time has declined from 11.9 days in 1984-85 to 4.17 days in 1999-2000 and the average ship berth output improved from 2,314 tonnes per day to about 6,321 tonnes per day during the same period. However, this improvement in performance does not compare favourably with that of other efficient ports in the region. For instance, the ASTA time at the ports of Singapore, Hong Kong, China, and Colombo is only a few hours. The total container cargo handled by all ports in India is much lower than that handled at a single port of Singapore or Hong Kong, China. Hence, much needs to be done in terms of improvement in efficiency and productivity. The proposed Tenth Five-Year Plan (2002-2007) gives high priority to modernization and the development of port infrastructure through private investment. The Government would largely act as a facilitator, removing the existing restrictions and enabling private players to make profitable investments. The Union budget (2002-03) has worked towards this end. On the one hand, there is a 66 per cent drop in public funding for the port sector,

on the other, the budget proposes a reduction in custom duty on equipment used by port and port services. This will enable a reduction in the capital cost for port developer and service providers. The Government has also implemented various schemes to enable the development of special economic zones around the ports, which can also make port investments more attractive.

B. Air transport services

1. Airlines

Prior to the 1990s, it was felt that monopoly in the aviation sector was necessary to reap the benefits of economies of scale, ensure safety and security and enable the country to achieve social objectives of equity, welfare and consumer protection. During that period, the Government had a monopoly in the building of airports, from conception to delivery, with business assured for national carriers that were also monopoly users.

With liberalization and the increase in international travel, the need to enhance the quality of service and improve capacity became obvious. It became increasingly difficult for the government to finance the development of airport facilities and increase airline capacity, hence, there was a move towards privatization and foreign investment.

The scope for privatization in the Indian aviation industry is limited to the construction, operation and maintenance of airports and operation of air services. Since air traffic control is considered to be closer to a public good and regulatory in nature, India, like most other countries, has not opened up this sector for privatization. There is very limited scope for development of the aircraft manufacturing industry, except for the manufacturing of certain low-end aircraft.

The first step towards liberalization was as early as 1986 when private airlines were allowed to operate charter and non-scheduled services[6] to all authorized airports under the Air Taxi Scheme and to decide their fares and flight schedules. This Scheme was implemented to boost the tourism industry.

[6] That is, they could not publish time schedules or issue tickets to public.

A major move towards liberalization was in the early 1990s when India implemented an open sky policy[7] for cargo which allowed international airlines to operate cargo flights without restrictions and to charge rate without reference to DGCA. Under this policy, any foreign or domestic airline or association of exporters or private operators can bring freighters to the country for lifting cargo from any Custom airport. The purpose of this policy was to facilitate the growth of international trade, exports in particular. Following this, several private international airlines began to operate air cargo flights. The immediate effects of this policy were an improvement in the availability of timely cargo services at competitive rates, decline in cargo rates and increase in volumes handled by as much as 15-20 per cent per year. However, there still remain restrictions on cabotage – international airlines are not allowed to carry domestic cargo on their flights within the country.

The next major step was the termination of the state monopoly over scheduled air transport services with the enactment of the Air Corporation (Transfer of Undertaking and Repeal) Act, 1994. The main reasons for the deregulation was the decline in profitability of Air India and Indian Airlines owing to organizational and managerial inefficiencies and that the capacity of the national carriers was not enough to meet growing passenger demand. With the enactment of the 1994 Act, private operators were allowed to operate both scheduled and non-scheduled services in the domestic sector and there were no major restrictions on aircraft size and type. However, in order to ensure safety, security and orderly growth of air transport services and keeping in view the infrastructural constraints at a number of airports, the Government permitted the addition to capacity based on traffic projections. To support the growth of the airline industry the Government in 1994-95 permitted direct import of aviation turbine fuel (ATF) under the special import license scheme. In 1997-98, the privatization policy was further liberalized and foreign equity participation of up to 40 per cent (100 per cent in case of non-resident Indians) was allowed in the domestic airline sector. Foreign airlines are, however, not allowed to pick up the equity, directly or indirectly.

[7] An open sky policy, even in other countries, does not imply that the market is entirely competitive. Landing rights are constrained by the notion of bilaterals, which is a major factor restricting competition from a third country's carrier.

The private sector initially responded with lot of enthusiasm and euphoria. In fact, by April 1998 there were 7 scheduled private operators which operated alongside of Indian Airlines and 27 non-scheduled operators. Subsequently, many of them had to wind up their operations and only two private airlines – Jet Airways and Sahara are now operating in India. The Government cannot be blamed entirely for this failure. A large part of the failure was owing to internal reasons such as lack of adequate financial resources, lack of knowledge about the business, frequent shifting of routes and operation and management inefficiencies.

An important reason for the failure of private airlines is the high price of ATF. The price of ATF in India is almost 2.5 times higher than the world price. Many state governments have imposed sales tax on ATF, ranging from 20-35 per cent. This itself has imposed an additional burden of 10 billion rupees on the aviation industry and has severely affected the profitability of operators.

Another policy which has adversely affected the operation of private airlines is the categorization of air routes. The Indian Civil Aviation policy has classified the air routes in three categories, as mentioned below, taking into account the need for air transport services in different regions.

Category I: Consists of routes to and from:

- Mumbai to Bangalore, Calcutta, Delhi, Hyderabad, Chennai and Trivandrum;
- Calcutta to Chennai and Bangalore;
- Delhi to Bangalore, Hyderabad and Chennai.

Category II: Connect stations in the north-eastern regions, Jammu and Kashmir, Andaman Nicobar Islands, and Lakshwadeep.

Category III: Consists of routes other than those in category I and II.

The policy states that 50 per cent of the kilometrage done by an airline on the category I routes has to be compulsorily done on the category III routes and 10 per cent on the category II routes. Since

most private operators have large aircraft which are suitable for category I routes only, it became economically unviable to operate them in category II and III routes. It has been estimated that this has imposed a burden of around 800 million rupees for the north-eastern sector alone. Many private operators lacked the scale required to maintain separate aircraft for flying to different routes. Most countries globally meet the social objective of route dispersal through direct cash subsidization whereas in India the industry is expected to bear the burden through cross-subsidization.

Private domestic operators are not allowed to operate on international routes even in cases where no national carrier is flying to certain countries such as Spain and Australia. Other factors resulting in the failure of private participation are the lack of transparent and consistent government policy, high rates of airport charges, high inland air travel tax, lack of adequate airport infrastructure and limited watch hour problem at minor airports.

In the year 2000, the Government announced the disinvestment of Indian Airlines. It has been proposed that 51 per cent of the equity of Indian Airlines will be disinvested, out of which 26 per cent will be given to a group/company/individual that has been referred to as a strategic partner. The remaining 25 per cent will be offered to employees, financial institutions and the public. In line with domestic air transport policy, foreign airlines will not be permitted to pick up the stake. The Government also proposed the disinvestment of 60 per cent of its stake in Air India, of which 40 per cent equity will be given to a strategic partner (which includes 26 per cent of the total equity to a foreign airline), 10 per cent to employees and the balance will be offered to employees, financial institutions and the public.

Although the Government has been considering the disinvestment of national carriers for quite some time, so far nothing has emerged. This is primarily because of shifts in government policies and slow decision-making. In the initial stages, many foreign airlines such as Singapore Airlines, and domestic companies such as Tata, showed their interests in this sector – but this has slowly died down owing to delays in decision-making. In the current year, the Government has further

deferred the disinvestment process in the anticipation that the airlines will fetch a better price once the global economy recovers.

2. Airport facilities

In 1997, the Ministry of Civil Aviation brought out a policy on airport infrastructure. This policy emphasized the need for private investment to increase airport capacity and achieve a higher level of customer satisfaction. In order to facilitate private participation, the policy proposed the establishment of an airport restructuring committee in the Ministry of Civil Aviation. This committee would identify the airports where private participation is required and conduct the feasibility study for the benefit of the private players. An independent statutory body, the Airport Approval Commission, would examine the private sector proposals and submit them to the Government. The policy also laid down various fiscal incentives for airport development.

In the initial stage, the Government encouraged private participation in the construction of new airports on a BOT basis similar to that envisioned for seaports. Foreign airport authorities were also allowed to invest in such projects and foreign equity participation was allowed up to 74 per cent (100 per cent with special permission). Some private sector aided projects have already been completed. For instance, the Cochin airport was commissioned on a BOT basis. Projects for development of new airports with private participation are also coming up at Bangalore, Hyderabad, Mumbai and Goa.

In the Union budget 2002-03, the Government announced its decision to upgrade the international airports at Delhi, Mumbai, Chennai and Kolkata by inducting private sector management and investment through long-term leases. This lease process is expected to be completed in the current financial year.

Overall, the government's airport privatization policy is marked by indecisiveness, inconsistency and lack of transparency. Previously, the Government considered the corporatization of the Airport Authority of India and privatization on a BOT basis, but is now moving towards long-term leases.

C. Some general observations on various government initiatives

To sum up, although the policy initiatives in the maritime and air transport sector do reflect the Government's acceptance of the need for privatization and foreign investment, they fall short in many respects and there are loopholes in major policies. They are characterized by lack of clarity and openness, discretion, overt and covert forms of discriminatory treatment towards some categories of investors and lack of strategic planning. For example, although the civil aviation policy states that private participation will increase investment and enable the sector to improve the quality of services, efficiency and global competitiveness, the policy does not clearly spell out the terms and conditions and the means by which such encouragement will be provided to the private investors. The port development policy lacks foresight and planning. While most other developing countries (for example, Sri Lanka) have used private/foreign investments to develop one or two ports as hub port/s, in India the investment is scattered across several major and minor ports. As a consequence, none of the ports have emerged as a hub port and India is losing valuable foreign exchange in transshipment to other Asian ports, such as Singapore and Colombo.

In the air transport sector, although the Government has proposed the disinvestment of Indian Airlines, a foreign airline is not allowed to pick up the stake. Who, other than a foreign airline, would otherwise be interested to invest in a loss-making domestic airline? How can an airline benefit from liberalization if it cannot leverage the network resources or benefit from the technical and managerial expertise of a foreign airline?

Similarly, in the case of ports, without any power to reduce manning scales, how can a private player operate profitably? Hence, it is not surprising that there has been limited progress towards privatization in these sectors.

III. WHAT NEEDS TO BE DONE?

A. Maritime transport

Private sector participation in maritime and air transport services would depend on the ability of the Government to foster and nurture an investment-friendly climate. The latter has not happened. There is urgent need to rectify the existing loopholes in the policies and implement an appropriate regulatory structure to ensure transparency, fairness and a level playing field without jeopardizing consumer and national interests. For instance, in the case of ports, the license agreement should address clearly the various risks involved in the pre-construction, construction and operational phases. In civil aviation, various issues, such as future traffic allocations, terms of transfer of ownership of titles to make land available and strengthening of related infrastructure need to be solved before the privatization of airports takes place. The civil aviation policy, which has been under consideration for over five years, needs to be finalized and released with immediate effect since the lack of a transparent document discourages private investment because of the increased risk perception owing to likely changes in policies.

In both these transport sectors, the Government should act as a facilitator and do away with its control over operation and management. Ports and airports should be corporatized, giving the management more freedom in decision-making and making them accountable for their performance. There is need for a strong, independent, transparent and reliable regulatory authority, which would balance the interests of the public and the private sector, domestic and foreign businesses, buyers and sellers.

There is urgent need to develop the intermodal transport system and allied logistic services, such as warehouses and container freight stations. Unlike most countries of the world, many major ports in India do not have rail connectivity. The slow pace of development of the inland transport chain has delayed the process of private investment. Gujarat is one classic example which has tremendous potential for private investment in ports but lacks the basic infrastructure. A study should be undertaken to consider how the ports and the supply chain as

a whole could benefit through efficiency gains from improved logistics facilities and rail connectivity of ports with the hinterland.

Tax structures should be revised to enable the industry to achieve a competitive edge. In shipping, the existing corporate tax should be replaced by a tonnage tax, which would, in turn, strengthen the domestic shipping industry. In aviation, a reduction in tax on ATF and duties on domestic air travel would enable the industry to become more competitive.

In order to ship Indian container cargoes directly through Indian ports, the ports will require large container terminals with adequate quay cranes, gantry cranes, tractor-trailer systems, trained and efficient operators, paved areas, good rail/road link, container trains, ICD facilities, automation and well-knitted cooperation of various agencies involved in the exercise. Such developments require massive investments and substantial planning, hence, it may not be possible to develop all the ports simultaneously. Ideally, India needs to develop two major ports initially: one on the east coast (for example, Chennai) and another on the west coast (for example, JNPT), into transshipment hubs so that most Indian cargoes can be shipped from and received at these ports. The hub port in the west coast will cater to westbound cargo covering the Atlantic region and that in the east coast will cover the Pacific region. These two hubs can then be interlinked through a "land bridge" and this will make the whole operation cost effective and reduce delays (since the shipping lines can avoid going round the Indian peninsula). However, a study will be required to examine this suggestion further and to work out the details of hub-port operations and of connecting them by a land bridge.

Privatization of Indian ports has been slow and hesitant. One of the main reasons for this is that India does not have any sectoral master plan outlining the short, medium and long-term development opportunities in the port sector. While the Ministry of Shipping is responsible for projects being taken up by the major ports, the respective state governments and their agencies are responsible for minor port projects. The projects for development of the minor ports can be vulnerable to significant traffic risks since these ports are in close proximity to each other and also to some major ports. This has slowed

down private investment in projects initiated by the eight coastal states. Moreover, there is no common development strategy and different states have implemented their own policies. For example, in some ports of Gujarat and Maharashtra, the state governments have equity participation while in other states such as Kerala, the Government provides the basic facilities such as break waters, capital dredging, navigational aids and communication equipment. The absence of a common BOT policy creates confusion among private players investing in this sector. Moreover, most Indian ports compete with each other for private investment rather than with other Asian ports.

To facilitate speedier investment in the port sector and to catalyse investment intentions into actual investment, there should be a sectoral master plan outlining the short, medium and long-term development opportunities in the port sector based on national economic trends and a tentative forecast of traffic patterns. The master plan should ensure that the projects undertaken by the central and state governments do not compete with each other, leading to subsequent non-viability.

The role of TAMP needs to be carefully scrutinized. Private operators should be given the flexibility to charge tariffs as determined by market forces. Even if there is a regulator, tariff regulation should be based on ceiling rates, leaving to the operators the freedom to apply or negotiate tariffs below the maximum allowed limit, rather than on fixed rates allowing for no departure. However, studies are suggested to work out the details of this type of tariff regulation and the role of TAMP in the future.

The present policy of taking over the port labour along with the existing assets is a major deterrent in attracting private investment in major ports. There is urgent need to formulate a clear strategy and action plan to tackle the labour issues.

B. Air transport

In air transport services, scheduled operators do not have route flexibility. The policy of route categorization is problematic as airlines are forced to operate on less lucrative and unviable routes. In fact, the market should be allowed to dictate air service needs, with adequate

freedom to the operators to choose the appropriate aircraft to match the payload and sector distance requirements. Airlines willing to provide services on unviable routes should be allowed to bid on a minimum subsidy basis.

The Government should seriously look into its disinvestment policies. The policy of restricting the equity participation of foreign airlines prevents the domestic airline industry from benefiting through imports of technical know-how, expertise and management practices, which are available globally. The ceiling of 26 per cent on foreign ownership is also not viable since none of the foreign investors is showing an interest in the sector unless the foreign equity participation is raised to 49 per cent.

Last, but not least, one should remember that increased competition and removal of market distortions will enable the country to gain from liberalization and reforms rather than a mere change in hands from public to private.

SUMMARY AND CONCLUSIONS

Maritime and air transport services are important for their intermediate role in the economy and their linkages with many other sectors. Prior to the 1990s, the Government was the main provider of these services and there were various restrictions on private participation. During that period, the performance of these sectors was marked by monopoly-induced inefficiency, low productivity and lack of global competitiveness. With the growth of the Indian economy, the transport sector was finding it extremely difficult to cater to growing domestic demands. To enable air and maritime transport sectors to operate efficiently and regain their competitive strength, the Government embarked upon an ambitious privatization plan in the 1990s, which was a part of the broader reform programme initiated by the Government. It was expected that induction of private investment and management practices would increase efficiency, reduce the financial constraints and speed up the process of adaptation of new technologies.

However, in the absence of a conducive environment for private participation and given the coherent, indecisive and halting nature of

most initiatives, there has been limited progress towards privatization and attracting investments in new infrastructure and consequently, improvement in the productivity, efficiency and competitiveness of these services. The real gains of liberalization can only be achieved through removal of market distortions and enhancement of competition and not through a mere change of ownership from the public to private sector. In line with these axioms, specific measures have been suggested in section III for the improvement of the current situation in the ports and maritime subsectors in India. The Government may consider the implementation of a transparent regulatory structure, which could reduce uncertainties, ensure a level playing field and improve the quality of services taking into account the interest of consumers. Instead of direct intervention, the Government should act as a facilitator, leaving it to the private sector to take operational and management decisions. This will enable the country to achieve the desired objectives of growth, capacity-enhancement and efficiency in both the public and private sectors.

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PRIVATE SECTOR PARTICIPATION IN THE TRANSPORT SECTOR IN INDIA

B.N. Puri *

ABSTRACT

The Government of India recognizes the importance of the private sector in bridging the resource gap in investment and improving the operational and managerial efficiency in the transport sector in order to address capacity constraints and deficiencies in the existing transport infrastructure and meet rapidly growing demand. The Government is actively pursuing policies to promote private sector involvement in the development of transport infrastructure and services.

The experience in involving the private sector in transport development in India is the focus of the paper. It provides a broad overview of government policies and various initiatives that have been undertaken to promote private participation following various models. It also discusses achievements made in different subsectors and draws some conclusions on major policies and initiatives of the Government.

INTRODUCTION

It is universally recognized that transport is crucial for sustained growth and modernization. Adequacy of this vital infrastructure is an important determinant of the success of a nation's effort in diversifying its production base, expanding trade and linking together resources and markets into an integrated economy. It is also necessary for connecting villages with towns, market centres and in bringing together remote and developing regions closer to one another. Transport, therefore, forms a key input for production processes and adequate provision of transport

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infrastructure and services helps in increasing productivity and lowering production costs.

The provision of transport infrastructure and services helps in reducing poverty. It needs no emphasis that various public actions aimed at reducing poverty cannot be successful without adequate transport infrastructure and services. It is difficult to visualize meeting the targets of universal education and healthcare for all without first providing adequate transport facilities.

All sectors, including transport, operate within the socio-economic framework provided by the State. Specific policies are designed within the framework for each sector in order to meet national goals and objectives. Currently, the main objective of development planning in India is higher growth in gross domestic product (GDP). The aim is to achieve a target of 8 per cent average GDP growth in the next 10 years. The higher rate of growth must also be accompanied by wider dispersal of economic activity and has to go together with the objectives of reduction in poverty, provision of gainful and high quality employment, improvement in literacy rates, reduction in the growth of population, reduction in gender inequality in illiteracy and wage rate, reduction in infant mortality, etc. As a service industry, transport does not exist for its own sake. It serves as a means to achieve other objectives. In formulating policy for the development of the transport sector, various macro objectives mentioned above therefore have to be taken into account. Some of these are economic in character while others are of a socio-political nature. Economic and non-economic objectives are not always consistent. However, their mix is one of the important factors which determines the pattern of investment and its funding in various sectors of economy.

Transport demand, both freight and passenger, is linked to the level of economic activity and development needs. It runs parallel to the growth of GDP. A higher rate of growth will therefore mean higher transport demand. However, as growth of GDP results in dispersal of economic activity, the demand for transport will go up further.

The demand for transport services is also affected by the structural changes that are taking place in the Indian economy. As a

result, the share of high value low volume commodities has been increasing, which in turn demands more flexible modes such as road transport. There has been an increase in the level of urbanization owing to migration and growth of population. The share of urban areas in the total GDP therefore has been on the rise. Such a spatial shift in the distribution and concentration of economic activity has a profound effect on the nature and level of transport demand. The most obvious result was the increase in demand for urban transport services. Taking various factors into account, it is expected that the elasticity of demand for freight traffic with respect to GDP growth will decline in the future but will still be more than one. With India's resolve to move to a higher growth path, it means that the demand for transport will continue to experience a high growth rate.

Large investments have been made for the development of the transport sector in India. This has resulted in the expansion of transport infrastructure and facilities. There has also been impressive qualitative developments. These include the emergence of the multimodal transport system, training centres of excellence and reduction in the arrears of over-aged assets. In spite of these impressive achievements, the transport infrastructure has not been developed to the extent that it can effectively address the problems of accessibility and mobility needs for the movement of people and goods. About 40 per cent of villages are yet to be linked with all-weather roads. More important, the existing transport network suffers from serious deficiencies, removal of which will also require large amounts of financial resources.

It is estimated that it would be necessary to increase the level of investment by up to three-four times its present level in real terms in order to meet the existing capacity shortages and deficiencies and to accommodate the future growth of transport demand in India. As the introduction of new technology has been slow in the past, the expansion of capacity must be accompanied by upgrading of technology for all modes of transport. As a matter of fact, the required nature and magnitude of capacity expansion and the need for improvement of operational efficiency offer an opportunity for simultaneous capacity expansion and upgrading of technology in the country.

Historically, transport infrastructure and services have been provided by the State. The massive investment requirement, long gestation period and uncertainty of return were mainly responsible for the lack of interest by the private sector. The presence of significant externalities also justified the dominant role of the State in providing basic infrastructure services. In the allocation of budgetary resources, therefore, the development of transport infrastructure is still given high priority. However, the resource requirements for maintenance and expansion have far exceeded the capacity of the budget. For long, the Government had contributed to the development of the transport sector. However, over the years, protected by restrictive practices, the public enterprises grew in size and have operated as "natural monopolies" providing poor quality of service at low prices. Most of them also incurred heavy losses and had to be supported by the Government. This has prompted the demand for liberalization to allow competition in the sector and restructuring for privatization of public enterprises.

Resource constraints, however, are not the only reason for encouraging private sector participation in the development of transport sector. It is also considered necessary to improve the efficiency of transport operations.

A number of benefits will accrue as a result of private sector participation in the development of transport infrastructure and services. The most obvious benefit will be the expansion of transport infrastructure. In addition, private sector participation is expected to help upgrade the technology, improve the quality of infrastructure services and lower the costs and prices of services.

However, as the experience in India demonstrates, it is not easy to associate the private sector in the development of transport infrastructure and services. As a matter of fact, the degree of success in this regard varies from one subsector to another. In what follows, the policy initiatives taken by the Government to involve the private sector in the development of various transport subsectors are highlighted and the current situation with regard to private sector participation is reviewed.

I. RAILWAYS

Indian Railways is one of the largest railway systems in the world. By carrying about 11 million passengers and over 1.20 million tonnes of freight per day the rail system occupies a unique position in the socio-economic map of the country and is considered a means and a barometer of growth. Rail is one of the principal modes of transport for carrying long-haul bulk freight and passenger traffic. It also has an important role as the mass rapid transit mode in the suburban areas of large metropolitan cities.

However, there has been a continuous decline in the share of railways in total traffic. Its share of the freight traffic came down from 89 per cent in 1951 to less than 40 per cent in 2000. Over the same period, the share of passenger traffic came down from 68 per cent to less than 20 per cent. This decline in the share of railways has caused serious distortions in the intermodal mix of traffic leading to various adverse consequences. In order to reverse the trend, it is necessary that the capacity of Indian Railways be augmented. Equally important is the need to improve the quality of rail services through technological upgrading and modernization. In the recent past, Indian Railways took some steps to involve the private sector in the development of railway infrastructure and services. Two separate schemes were initiated. These were own your own wagon scheme (OYWS) and build-own-lease-transfer (BOLT).

Own your own wagon scheme

Under OYWS, private sector firms procure wagons, own them and lease them to Indian Railways, which pays lease charges. The scheme was conceived as a strategy to enhance the capacity of railway transport and to meet the interests of the various sections of the economy by encouraging private parties to own their wagons and supplement the resources available with the railways for the acquisition of rolling stock.

For their investments in wagons, the owners are paid lease charges at the rate of 16 per cent per annum for the first 10 years and 10 per cent for the next 10 years. A number of major companies have

participated in the scheme. Initially, the response was quite encouraging. However, the interest in the scheme has waned lately.

Build-own-lease-transfer scheme

In order to bridge the gap between the requirement and availability of funds, Indian Railways initiated a scheme aimed at the participation of private sector financiers in the development of rail infrastructure which included electrification, gauge conversion, doubling of existing railway line projects, etc. Participation of the private sector through BOLT schemes was expected to serve two purposes. First, the Railways would be able to raise the funds for projects having long gestation periods. Second, as the project would be implemented by the private sector, it was expected that they could be commissioned in a shorter time period.

Under the scheme, a project was awarded to a provider who could undertake the construction of the project. As the BOLT project involved investment, which was generally beyond the resource capability of the provider, financiers/financial institutions were expected to arrange the funds. Financiers were allowed to enter into an agreement directly with the Railways so that they could get back the loans with interest through payments of lease rentals directly from the latter.

The BOLT scheme, however, did not succeed in attracting the private sector. One of the reasons was that the financiers faced certain risks mainly on account of time and cost overruns. Moreover, the financiers were not eligible for the fiscal benefits offered to the infrastructure developer.

As financiers did not have the experience of railway assets creation, it would have been better if the Railways shouldered the responsibility of bearing the pre-commissioning risks. Further, the approved asset-builders of the Railways were small operators and they depended heavily on financial institutions for financing of the projects. For all practical reasons, the responsibility of the private entrepreneur would have ended after the assets were created and handed over to the Railways for operation. On the other hand, financial institutions could be receiving the lease charges from the Railways over a long period of time. Eventually, the scheme was discontinued.

Considering the progress made so far, it can be concluded that private sector participation in the railway sector has not met expectations. Indian Railways have now identified the major obstacles to private sector participation and defined the objectives of such participation more clearly. These redefined objectives would be achieved by encouraging various models of public-private partnership arrangements. These objectives and the new initiatives are discussed below.

Objectives of public-private partnerships

Based on its experience of private participation, the Railways have identified the following objectives:

(a) Supplementing government resources in railway infrastructure projects by private capital flows;

(b) Involving state governments in the creation/development of railway infrastructure for the common public good;

(c) Enhancing the capacity of rail transport to avoid supply-demand mismatch;

(d) Ensuring availability of transport needs consistent with the expected GDP growth of 7 to 8 per cent per year.

A number of partnership models will be adopted to achieve the above-mentioned objectives. These include:

(a) Special purpose vehicle (SPV) route;

(b) Build-own-transfer (BOT) route;

(c) Funding by state governments for viable projects;

(d) Private freight terminals;

(e) Funding by state governments for unremunerative projects;

(f) Suburban transport.

Special purpose vehicle

The identified viable projects can be implemented through various routes. One of these is through the creation of a special purpose vehicle (SPV). The salient features of this model are as follow:

(a) Indian Railways prepares a project report indicating the cost of the various components of the project as well their viability. If the Railways decide to participate in the project, the responsibility of land acquisition lies with the Indian Railways;

(b) The SPV scheme envisages the participation of the private sector and other beneficiaries and national-level infrastructure funding institutions for the development of railway infrastructure through appropriate concessions. Revenue from commercial operations would accrue to SPV through revenue sharing with Indian Railways or through payment of access charges by the Railways;

(c) The land required for a project is to be made available on lease to SPV. Commercial utilization of the Railway land may also be allowed;

(d) In case of green field projects, SPV is free to decide the process relating to project development, construction and maintenance. However, for gauge conversion and double tracking, Indian Railways undertakes maintenance works of the project. Indian Railways can use its own rolling stock for operating the facilities created by SPV. However, in specific cases the responsibility may be given to the private operators.

The concession period allowed for a SPV project can be fairly long. Initially, a concession is granted for 33 years, which may be extended further.

Build-own-transfer

This is an improved version of the earlier BOLT scheme described above. The BOT model envisages private sector participation through the formation of a consortium of construction contractors and financers. The salient features of the scheme are as follows:

(a) Under the scheme, the concessionaire will design, build and own the facility. After the concession period is over, the facility will be transferred to the Railways;

(b) The Concession will be granted through the bidding process. The main parameter for the grant of the concession will be the lowest bid decided on the basis of the present value of the future periodic access charges demanded by the bidder over the concession period;

(c) In order to give sufficient comfort to the lenders, the access charges will go in an escrow account through a tripartite agreement between the Railways, project sponsors and the lenders;

(d) Indian Railways will prepare the project report, which is to be given to all pre-qualified bidders;

(e) The facility created will be maintained and operated by Indian Railways.

Participation by state government

Indian Railways will also take up projects with the help of state governments by creating SPVs. Apart from the central and state governments, financial institutions may also participate in an SPV. Indian Railways may take up projects by creating an SPV in which both Indian Railways and the state government may provide equity.

Private freight terminals

Indian Railways encourage the private sector to develop freight terminals. The Railways pay service charges towards compensation for the capital cost. The private sector promoter is allowed to charge the customer separately for services such as handling/loading/unloading, warehousing and transport.

II. ROADS

The road network in India, which is seemingly very large with a length of about 3 million kilometres, cannot meet the accessibility and mobility requirements of a country of India's size and population. The

road network suffers from serious deficiencies in a number of areas. The road sector along with the rest of the transport sector has remained under funded over successive plan periods in the past. In order to raise resources and complete the projects at a faster pace, the National Highway Act, 1956 was amended in 1995 to encourage private sector participation in the development, maintenance and operation of national highways. The private sector can now invest in national highway projects, levy, collect and retain fees from user charges and is also empowered to regulate traffic on such highways in line with the provisions of the Motor Vehicle Act. A number of incentives are given to the private sector for the development of road projects. These are listed below:

(a) The Government bears the costs for:

(i) Project feasibility studies;

(ii) Shifting of utilities/services;

(iii) Environmental clearance, cutting of trees, etc.;

(iv) Land for the right of way and way side amenities;

(v) The land required for wayside amenities is treated as land required for the project.

(b) The National Highways Authority of India (NHAI) is authorized to provide a capital grant up to 40 per cent of the project cost to make the project viable. However, the quantum of the grant is to be decided on a case-by-case basis;

(c) Toll rates are indexed to the wholesale price index;

(d) A 10-year corporate tax holiday may be availed of within the 20 years after commissioning of the project;

(e) External commercial borrowing of up to 35 per cent of the project cost is permitted;

(f) Import duties on modern and high-capacity road construction equipment have been removed;

(g) Foreign direct investment up to 100 per cent is allowed. The total foreign equity can be up to 15 billion rupees;

(h) The operator can develop and operate wayside amenities such as restaurants, motels/hotels, rest/parking areas, petrol pumps and workshops;

(i) Infrastructure as defined in Section 80-1A (12) of the Income Tax Act now includes roads;

(j) Investment in NHAI bonds is exempted from the capital gains tax.

NHAI has taken up the development of the National Highway Development Project (NHDP), which comprises the Golden Quadrilateral and north-south east-west corridor projects. In addition, NHAI has also been entrusted with the responsibility of developing other national highways, which include roads linking major ports.

National Highway Development Project

One of the most prestigious projects launched in India is the National Highway Development Project (NHDP) comprising 5,846 km of the Golden Quadrilateral and 7,300 km north-south and east-west corridors. While the Golden Quadrilateral links Delhi, Mumbai, Chennai and Kolkata – the major metropolitan cities in the country, the north-south and east-west corridors link the north-south and east-west parts of the country. The north-south corridor links Srinagar in the north with Kanyakumari in the south and the east-west corridor links Silchar in the east with Parbandar in the west. The NHDP project is estimated to cost 540 billion rupees and is being financed through cess on petrol and diesel, market borrowing, multilateral funding and private capital.

The private sector has been involved in implementing a large number of National Highway projects, including those relating to NHDP. Associating the private sector in the development of highways, however, was not an easy task as the experience of NHAI shows. It was initially thought that it would be possible to develop the national highways,

particularly those relating to high traffic volume, exclusively through private sector participation with some support from the Government.

The success in associating with the private sector however has not been to the desired level. The experience indicates that the main issue that needs to be addressed is the traffic risk. It may be mentioned here that the private sector was involved in a number of road sector projects before the National Highway Authority of India took up the development of national highways. However, this involvement mainly related to bypasses and bridges and was implemented by the private sector on a build-operate-transfer basis. In all, 29 such projects involving a sum of 15,000 million rupees were taken up by the private sector.

The National Highway Authority of India has so far awarded 21 projects to the private sector. These projects aggregate to a total length of 1,109 km of highways and are being undertaken following three models of private participation namely, (a) build-operate-transfer, (b) annuity and (c) special purpose vehicle. The total cost of these projects is 68,670 million rupees as per the details shown in table 1.

Table 1. Models of NHAI projects, road mileage and cost

Model	Length (km)	Estimated cost (millions of rupees)
BOT – Toll basis	435	33 140
Annuity basis	476	23 540
Special purpose vehicle	198	11 990
Total	1 109	68 670

Considering the need to develop about 13,000 km of national highways, the response of the private sector in developing national highways has not been very encouraging, as evident from the figures provided in table 1. In order to encourage greater involvement of the private sector, the Government of India has decided to follow the annuity approach in which the concessionaire does not need to bear the commercial risks involved with road operation. In this approach, the concessionaire provides road services in accordance with the project requirements as stipulated by NHAI. The concessionaire is compensated

with fixed semi-annual payments for his investments in the project. The project is awarded to a concessionaire on the basis of the lowest annuity payment demanded. The payment made to the concessionaire takes into consideration the cost of construction and maintenance during the concession period, the cost of raising funds for financing the project and a return on equity. Normally, the period of concession is 17.5 years, which includes a construction period of 2.5 years.

Annuity payments are made after the project is implemented. The system of payment is based on incentives, which ensures that the roads are maintained in good condition and equity of service provided in accordance with the predetermined standards.

In a BOT type of arrangement, the concessionaire is allowed to keep all toll revenues it collects. In addition, NHAI also provides equity or a cash grant up to 40 per cent of the total cost of construction of the project. However, no such incentive is allowed in the case of annuity projects.

NHAI also follows the special purpose vehicle model for the development of national highways as described in the previous section. This model is being increasingly used for the development of highways linking major ports. NHAI sets up an SPV by associating the concerned Port Trust and raises loans in accordance with the predetermined debt-equity ratio. The loan is serviced by toll collection through operation of the facility.

Although the private sector is now playing a role in the development of national highways by NHAI, the major source for funding has been through a cess on petrol and diesel. The contribution of the private sector has been about 20 per cent of the costs of National Highway Development Projects. However, the share of the private sector is likely to go up in the future as it gains more confidence in undertaking road projects through partnership arrangements with the public sector and the overall environment becomes more conducive to private participation.

III. PORTS

Ports are the gateways for India's international trade by sea and handle about 90 per cent of foreign trade. There are 11 major ports and 139 operable minor and intermediate ports along the long coastline of the country.

The major ports of the country handled 281 million tonne of cargo in 2000-01. By the end of 2007 Indian ports are expected to handle 415 million tonnes of cargo. This will require huge investments for the creation of additional facilities. There is also urgent need for the modernization of existing ports to improve their operational efficiency, which is quite low compared with major ports in the region.

In the past, the capacity of the major ports was not adequate to meet the traffic demand. This resulted in various adverse consequences. Efforts were made to create additional capacities at many ports. New port facilities were developed in many minor and intermediate ports. However, major ports still suffer capacity constraints despite the fact that the present aggregate capacity of Indian ports exceeds the available traffic.[1]

The focus therefore has to be on capacity enhancement of major ports through modernization, the provision of cost-effective services and enhancement of service quality rather than creating new capacity. There is also need to commercialize port operations. In such a scenario, the private sector has great potential to play an important role; in the last five years, private sector participation in the development of ports has been very encouraging. Seventeen private sector projects have been approved. These projects will create additional capacity of over 60 million tonnes with an investment of 45,000 million rupees. Other projects with private sector participation are also under consideration.

Private sector participation in the development of ports in India is encouraged through two models. Under the first model, the private sector can exclusively build and operate the facility and after completion

[1] Arpita Mukherjee and Ruchika Sachdeva in their article in this volume of the *Bulletin* discuss more about this problem of port development in India.

of the concession period transfers it to the concerned port authority. The second model envisages the involvement of the private sector through joint venture projects.

However, the private sector cannot participate in all types of port development projects. The areas allowed for private sector participation are listed below:

(a) Leasing out existing port assets;

(b) Construction/creation of additional assets, such as:

(i) Construction and operation of container terminals;

(ii) Construction and operation of bulk, break-bulk, multi-purpose and specialized cargo berths;

(iii) Warehousing, container freight stations, and storage facilities;

(iv) Cranage/handling equipment;

(v) Setting up of captive power plants;

(vi) Dry docking and ship repair facilities.

(c) Leasing of equipment for port handling and leasing of floating crafts from the private sector;

(d) Pilotage;

(e) Captive facilities for port-based industries.

All ports can identify projects for implementation through private sector participation. The concerned port authority prepares the feasibility report of the project and invites tenders from investors based on the feasibility report. The evaluation of the bids is made on the basis of maximum realization to the port using the net present value analysis method. The BOT model is generally preferred. The assets revert to the port authority after the end of the concession period. The port authority decides the concession period for each case not exceeding the allowable maximum of 30 years.

To facilitate the process of private participation, the Government has prepared a model bid document. The salient features of which are as follows:

(a) Introduction of the concept of revenue sharing in place of minimum guaranteed throughput;

(b) Compensation for default;

(c) Permission of giving charge on assets in favour of lenders by the licensee for seeking financial closure.

As a part of the investment policy for ports, a number of incentives are given to the private sector. These are:

(a) Foreign equity up to 100 per cent is now permissible in the construction and maintenance of ports and harbors and in projects providing support services to water transport, such as the operation and maintenance of piers, loading and discharging of vehicles;

(b) Ten years of tax holiday can be availed of during the initial 20 years of concession;

(c) Concessional customs duty at 10 per cent on specified ports equipment.

IV. AIRPORT[2]

Air transport plays an important role in India where the industrial and commercial centres are located far apart and terrain and climatic conditions are quite different from one part of the country to the other. The full potential of the civil aviation sector in India, however, has yet to be realized. This may necessitate an improvement in the quality of services, competitive pricing, better airport infrastructure, etc.

In the past, steps were taken to improve the quality of air transport services. The emphasis was on liberalization of the air transport sector in order to encourage private sector participation. Over

[2] An article by Arpita Mukherjee and Ruchika Sachdeva in this volume provides more details of private sector participation in the air transport sector in India.

the years, the Government has disengaged itself considerably from commercial airline operations. Private sector participation in domestic air services has been aimed at bridging the resource gap in investments to meet the growing demand and improve the managerial and operational efficiency of air services. The process of dis-investment of public sector airlines namely, Air India and Indian Airlines, is under active consideration. In order to make the major airports world class, a decision has been taken to restructure the existing airports at Delhi, Mumbai, Chennai and Kolkata through long-term leases. While the process of disinvestment of Indian Airlines and Air India has received some setbacks, progress with regard to private sector participation in the development of the four metropolitan airports at Delhi, Mumbai, Chennai and Kolkata has been satisfactory.

CONCLUDING REMARKS

The development of the transport sector is a prerequisite for sustained growth of the economy. Availability of adequate transport services is also a key to encouraging foreign direct investment. In this context, it may be pointed out that an improved transport network has played a crucial role in China becoming the largest recipient of foreign direct investment.

India has long suffered from transport bottlenecks, mainly because of budgetary constraints and managerial inefficiencies. To overcome this handicap, conscious efforts are being made to improve transport infrastructure in the country. The importance of private sector participation in bridging the resource gap and improving the operational and managerial efficiency has also been recognized.

In assessing the role of the private sector, a distinction is made between infrastructure and services. The basic infrastructure, with a few exceptions, lies in the hands of the public sector. The long-term goal is to provide open access to fixed infrastructure for all modes of transport and to involve the private sector in the provision of infrastructure facilities. With this end in view, “market principles” are being applied for the development of transport infrastructure and services. Budgetary funds are being utilized to make private investment in fixed infrastructure more attractive.

Some success has been achieved in associating the private sector in ports and national highway projects. Efforts are also being made to make private participation models such as BOT more investor-friendly in the road sector by focusing on downside risks of low traffic volumes.

However, there is still a long way to go in the railway and civil aviation sectors. The effort to encourage private participation has not been very successful in the railways sector. A revised strategy therefore is being pursued and further liberalization is expected in the future. Efforts are also being made to involve the private sector in the development and operation of the four metropolitan airports in the country.

Drawing lessons from experiences in the past, the Government is formulating new policies, offering more attractive incentive packages and developing mechanisms to ensure greater participation of the private sector. With these new initiatives, it is hoped that the involvement of the private sector will increase in the future as the sector gains more confidence in undertaking transport projects through partnership arrangements with the public sector and the overall environment becomes more conducive to private participation through conscious efforts of government.

LIBERALIZATION OF THE CONTAINER HAULAGE INDUSTRY IN MALAYSIA

Tengku Jamaluddin Bin Tengku Mahmud Shah Al-haj*

ABSTRACT

The increase in volumes of international trade using containerization led to the rapid growth of container traffic at Malaysian ports throughout the 1980s and 1990s, which in turn resulted in congestion at ports and delays in delivery of containers to their destinations. Operasi Cekap, a concerted effort by the Federation of Malaysian Manufacturer, Port Authorities and the Ministry of Transport, was undertaken to find a solution to the problems of delay in delivery and congestion at the ports. In line with the recommendations made by various studies sponsored by the industry and Government, measures have been taken to liberalize the road haulage industry by allowing a greater number of operators. Other steps have also been taken in order to ensure that the manufacturing operations can be run smoothly and Malaysian ports remain competitive. The liberalization of the haulage industry was seen as a necessity as the dramatically increasing number of containers arriving at national ports could not be handled effectively by the few existing operators.

This paper discusses various measures that have been taken by the Malaysian Government to liberalize the container haulage industry and also examines the rationale and implications of liberalizing the industry within a short span of time.

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INTRODUCTION

The advent of containerization has led to an efficient way of freight transport across the world. The safety, versatility and ease of handling features of container technology, as well as its suitability for multi-modal transportation have helped in the rapid and wide penetration of the technology in the freight industry. Encouraged by its efficiency and cost-effectiveness, the development of containerization in Malaysia has closely followed its advancement in the global shipping industry. However, the burgeoning demand for freight transport owing to the booming growth of the country's manufacturing and industrial sectors, has also significantly contributed to the fast growth of containerization in Malaysia.

The increase in volumes of international trade using containerization led to the rapid growth of container traffic at Malaysian ports throughout the 1980s and 1990s, which in turn resulted in congestion at ports and delays in delivery of containers to their destinations. The problem reached a level at which manufacturers and exporters had to incur excessive costs for storage and delays at the ports. Faced with this situation, the Government of Malaysia developed several policies aimed at increasing the efficiency of the container haulage industry in order to remain competitive in the global market.

Operasi Cekap, a concerted effort by the Federation of Malaysian Manufacturer (FMM), Port Authorities and the Ministry of Transport (MOT), was undertaken to find a solution to the problems of delay in delivery and congestion at ports that peak further during the festive periods. Several factors that contributed to the situation were identified. One of the main factors identified was that the number of container haulage operators was insufficient. In 1991, there were only four operators, which prompted the Government to consider policies to liberalize the haulage industry in the country. Chief among these policies was to allow multiple operators in this previously controlled market. It may be mentioned here that the industry, which began with a single operator in 1971, had 55 operators by 2001 thanks to the liberalization policy of the government.

The Government considered the liberalization of the haulage industry as a necessary move since the number of container movements at national ports had increased dramatically over the years. Furthermore, the Government was committed to attracting more main line shipping operators (MLOs) to Malaysian ports. The implication of this policy was that the number of containers arriving could reach 5-6 million boxes by 2004.

It was expected that the emergence of new hauliers would significantly increase the efficiency and capacity of the industry. The new hauliers would be providing services that used to be provided by the five main container haulage operators in the past. The resulting competition from a large number of hauliers in the market was expected to bring about service rationalization, reduction in delays and possibly rate adjustment, which could enhance the efficiency of the industry and thereby benefit the container users as well as encourage greater containerization in the future.

The liberalization of the haulage industry received overwhelming support from many sectors of the economy, especially from the manufacturing and the haulage industry itself. However, the existing haulage operators expressed their deep concern and were sceptical about the expected benefits of liberalization. While the manufacturing sector viewed the liberalization move as a vital step towards increasing the level of service of the haulage industry, the existing haulage operators felt that this move would create instability in the industry.

With this background in mind, the objective of the paper is to examine the rationale of the Government's move in allowing a large number of hauliers within a short period of time and its effect on the industry. The paper also discusses the effects of other steps that have been undertaken to liberalize the industry. Finally, some recommendations have been made based on the experience gained so far and conclusions are drawn.

I. BACKGROUND OF THE CONTAINER HAULAGE INDUSTRY IN MALAYSIA

In Malaysia, containerization made its debut in 1971. It was the same year when the Government launched its second Malaysia Plan (2MP). In 2MP, the Government proposed the formation of a national haulage company to meet the inland transport requirements of the country. Subsequently, *Kontena Nasional Berhad* was established in August of the same year. Four months later, in December 1971, the first container vessel, *M.V. Benavon* on its maiden voyage called at North Terminal, Port Klang.

The rapid economic development experienced by Malaysia throughout the 1980s and early 1990s, especially the huge expansion of its industrial and manufacturing sector, led to massive demand for container haulage services. To meet this growth of demand and in response to increasing pressure for better services, four more operators were introduced between 1981 and 1991 (see table 1). These five operators carved up the container road haulage industry until 1997. They formed the Container Hauliers Association of Malaysia (CHAM). As of June 1999, CHAM represented the five operators and had a combined fleet of 2,131 prime movers and 10,701 trailers (see table 2).

Table 1. New container haulage operators (1981-1991)

No.	Operators	Year
1.	Shapadu Kontena (now Diperdana Kontena)	1981
2.	Konsortium Perkapalan (now Konsortium Logistik Berhad)	1983
3.	MISC Haulage Sdn Bhd	1991
4.	Multimodal Freight Sdn Bhd	1991

Source: Commercial Vehicle Licensing Board.

Table 2. Container haulage operators and vehicles licensed, June 1999

No.	Company	Number of licences approved		Number of vehicles licensed		Balance unused	
		Prime mover	Trailer	Prime mover	Trailer	Prime mover	Trailer
1.	Kontena Nasional Sdn Bhd	822	3 307	771	3 035	51	272
2.	Di Perdana Corporation Berhad	350	1 626	325	1 417	25	261
3.	Konsortium Perkapalan Berhad	464	2 627	422	2 336	42	291
4.	MISC Haulage Services Sdn Bhd	400	2 800	400	2 607	0	193
5.	Multimodal Freight Sdn Bhd	275	1 664	213	1 306	62	358
Total		**2 311**	**12 024**	**2 131**	**10 701**	**180**	**1 375**

Source: Commercial Vehicle Licensing Board.

In 1997, the Government decided that it was necessary to increase the number of operators in the industry. The move was seen as an early attempt by the Government to increase efficiency in the industry following numerous complaints that it had received concerning the inefficiency of the industry and delays in providing services. Consequently, the Government approved seven new operators (see table 3). However, these new operators were allowed to haul containers only within a range of a 30-kilometre radius of the ports. This geographical restriction of operation was, however, lifted in 2000.

Table 3. New container haulage operators (1997)

No.	Operators
1.	Gerak Intensif Sdn Bhd
2.	Taipan Connection Sdn Bhd
3.	Sparkomatic Assemblers Sdn Bhd
4.	Veteran Timur Sdn Bhd
5.	Tripee Sdn Bhd
6.	Siang Cemerlang Sdn Bhd
7.	Halus Maju Sdn Bhd

Source: Commercial Vehicle Licensing Board.

With these 7 new operators, the total number of players in the haulage industry was raised to 12. However, even after the introduction of the new operators and subsequent lifting of initial restriction on their area of operational coverage, the situation at the ports did not improve according to expectations. Delays in deliveries were still common, particularly during the festive seasons, and this modest increase in the number of operators also did not help much to alleviate the congestion problem at the ports.

By the middle of 1997, the Malaysian and other economies in the ASEAN region were badly hit by the Asian financial and economic crisis. National economic growth came down to far below its previously expected level of performance. As a consequence, the container haulage industry, which depended on the volume of production and domestic and international trading activities, was badly affected. Owing to the sudden fall in demand, the industry suffered from excessive capacity for some period after the crisis.

The unexpected downturn of the economy that followed the crisis however, did not distract the Government from its commitment to the liberalization of the industry. It continued to pursue its liberalization policies. The main reason for this was that the volume of containers arriving at the ports again started to increase with the gradual recovery of the economy.

The policy of issuance of permits to more operators was continued even though there was a view in the industry in support of stopping the issuance of new permits. Gradually more operators were permitted. As a result, 55 container haulage operators now operate in the country, which has resulted in a smaller share of the market for each operator (see table 4).

Table 4. Total number of container haulage operators in Malaysia, 2001

No.	Operators	No.	Operators
1.	Kontena Nasional Berhad	29.	PMSAA Multimodal Sdn Bhd
2.	Di Perdana Corporation Berhad	30.	IPLO Logistics Services Sdn Bhd
3.	Konsortium Logistik Berhad	31.	Benua Haulage Sdn Bhd
4.	MISC Haulage Sdn Bhd	32.	Insure-Trade Sdn Bhd
5.	Multimodal Freight Sdn Bhd	33.	Zetavest Sdn Bhd
6.	Century Logistics Sdn Bhd	34.	Nilai Inland Port Sdn Bhd
7.	Integrated Haulage Sdn Bhd	35.	Northport Container Terminal Sdn Bhd
8.	Star Logistik Sdn Bhd	36.	Prompt Dynamics Sdn Bhd
9.	Timur Permai Haulage Sdn Bhd	37.	Auto Wealth Plus Sdn Bhd
10.	Asas Kontena Sdn Bhd	38.	Triumph Alliance Sdn Bhd
11.	Perak Freight Services Sdn Bhd	39.	Yinson Haulage Sdn Bhd
12.	M. Zain Logistics Sdn Bhd	40.	Dayang Mewah Sdn Bhd
13.	Pelangi Forwarding Sdn Bhd	41.	Peladang Angkut Sdn Bhd
14.	Johan Laju Transport Sdn Bhd	42.	ZLA Transport and Services Sdn Bhd
15.	Airocenic Express Sdn Bhd	43.	Planetwide Express Sdn Bhd
16.	Pengangkutan Toh Eng Huat Sdn Bhd	44.	Teguh Cemerlang Sdn Bhd
17.	Utas Lagenda Sdn Bhd	45.	Ibrahim Hashim Transport Sdn Bhd
18.	H.R.H Logistics Sdn Bhd	46.	Pelabuhan Tanjung Pelepas Sdn Bhd
19.	JP Logistics Sdn Bhd	47.	Sparkomatic Assemblers Sdn Bhd
20.	Jangkauan Galaksi Sdn Bhd	48.	Taipan Connection Sdn Bhd
21.	Second Port Logistics Sdn Bhd	49.	Pekembar Industries (M) Sdn Bhd
22.	Gugusan Peremba Sdn Bhd	50.	Veteran Timur Sdn Bhd
23.	LTS Logistics Sdn Bhd	51.	Gerak Intensif Sdn Bhd
24.	Tanjung Express (M) Sdn Bhd	52.	Siang Cemerlang Sdn Bhd
25.	Transocean Haulage Services Sdn Bhd	53.	Halus Maju Sdn Bhd
26.	Kasawari Angkut Sdn Bhd	54.	Agenda Wira Sdn Bhd
27.	Pintaran Timur (M) Sdn Bhd	55.	Koperasi Polis Di Raja Malaysia Berhad
28.	Persila Sdn Bhd		

Source: Commercial Vehicle Licensing Board.

II. JUSTIFICATION FOR LIBERALIZATION OF THE CONTAINER HAULAGE INDUSTRY

This section provides a summary of the reasons and justifications considered by the Government for the liberalization of the container haulage industry in Malaysia.

A. Increasing efficiency of the container haulage industry

Before the liberalization moves, the shipping sector all over the world considered the ports in Malaysia as inefficient and unreliable. One of the factors that contributed to this bad reputation was the congestion level at ports. A key contributor to this situation was the insufficiency of container hauliers in the country. The situation was much worse during peak periods and festival seasons. It may be mentioned here that the container hauliers are one of the key players in the logistics chain, which include shipping agents; freight forwarders; warehouses, depots and ports operators; and shipping lines. However, because of its key role in the chain, inefficiency of the haulage industry leads to inevitable inefficiency of the whole chain which in turn affects competitiveness of the economy.

The Government recognized the importance of smooth logistics operation in this country. In order to ensure efficient logistics operations, it decided to allow greater numbers of operators in the container haulage industry, which used to be controlled by the five CHAM members. It was expected that this move would induce greater competition between the operators resulting in higher efficiency of the haulage industry and the logistics chain as a whole as well as encourage innovations in providing new and more efficient services.

B. Delays in haulage

The manufacturers and freight forwarders are among the main parties who have long urged the government for the liberalization of the container haulage industry. These two groups are represented at the ports by the Federation of Malaysian Manufacturers (FMM) and the Association of Freight Forwarding Agents, respectively. The main issue that they brought to the notice of the government was the delays in

delivery of containers, which increased their total transportation and inventory costs and subsequently the financial losses that they had to inccur due to the increased cost of transactions.

The delays in land-side operations were attributed primarily to the inefficiency of the hauliers. These delays affected the delivery to and removal of containers from the consignee's premise. In a study conducted by FMM in September 1998 it was found that 52 per cent of respondents were of the opinion that delays by hauliers were the main factor causing the delay in their operation. Delays also imposed additional storage cost on them as the containers were removed later than the period allowed by the port operators.

Similar views were also expressed by the respondents in a survey conducted by the National Productivity Centre (NPC) in 1999. Fifty per cent of the respondents to this survey considered the impacts of delay in the delivery of containers on their businesses as severe. It was also found that delays in dispatching containers from exporters' premises to the ports created a chain of adverse effects to their businesses. About 41 per cent respondents claimed that delays caused them to miss shipping schedules of MLOs calling at local ports. Subsequently, it resulted in the loss of customers for about 16 per cent of respondents and cancellation of orders to another 14 per cent of respondents.

Such occurrences resulted in the decline of Malaysian export competitiveness, which otherwise could have been avoided if the efficiency of container haulage operation had been improved. The above-mentioned FMM survey found that 61 per cent of the respondents supported the view of increasing the number of hauliers.

It was reported that in order to enhance the efficiency of the industry, the Government was initially in favour of pursuing a policy for consolidation of the existing five hauliers and allowing additional smaller operators within a defined geographical region around the ports. However, the Government decided afterwards to allow a larger number of hauliers and lifted the initial restrictions on operations of small operators, which were permitted in 1997.

C. Commitment to globalization and ASEAN Free Trade Area (AFTA)

With the ongoing globalization of the world economy, the developed countries have urged the freeing and liberalization of domestic markets to allow a level playing field for all players. Pursuant to this call, one of the issues that was brought to the notice of the World Trade Organization (WTO) was the high degree of protection that many Governments in developing countries were providing to their transport sectors. Malaysia could not afford to distance herself from international business trends and it was also hard for her to get away from such external pressure.

With the implementation of AFTA by the year 2005, the national boundaries, from the trading perspective, will begin to fade away in the ASEAN region. Initiatives to secure the role of Malaysia as the regional distribution and consolidation centre requires her to develop efficient logistics operation in the country. This requires not just good physical facilities, but also comprehensive logistics-chain providers.

By liberalizing the container haulage industry, Malaysia would be in a favourable strategic position to meet the demand for the expected container movements in the region. The Government expects that the main container hauliers in CHAM would be able to provide a good and reliable service beyond the national borders and also could gradually venture into container haulage operations in Singapore, Thailand and other ASEAN countries. With the shift of the main hauliers to the regional market, the new hauliers then could play a bigger role in meeting the needs of domestic logistics operation left out by the bigger players.

The Government considered that the time left before the implementation AFTA could be used as a window of opportunity by the container haulage operators. During the intervening period, operational efficiency can be increased and planning can be made ahead of the expected changes in an increasingly complex and challenging regional market.

D. Promotion of greater participation by the private sector

The five main container hauliers associated with CHAM are private entities. However, the Government has a direct stake in all of these five companies through holding of equity or through their status as sudsidiaries to a government owned company. For example, Permodalan Nasional Berhad, the investment wing of the Government, owns Kontena Nasional Berhad. MISC Haulage Sdn Bhd is indirectly owned by Petroliam Nasional Berhad (Petronas), the mother company for Malaysian International Shipping Corporation (MISC) and Multimodal Freight Sdn Bhd is a subsidiary of Keretapi Tanah Melayu Berhad (KTMB), which is a government-owned company.

However, unlike the big five companies in CHAM the Government does not have a direct stake in the new breed of container hauliers. They come from the private sector and most of them are related to and have a strong background in freight transport by land. With greater participation of the private sector in the industry, the Government hoped that it would be a in the right direction step towards reducing dependency of the industry on government whereby the private sector could develop and grow by itself.

E. Growth of container traffic

There has been a phenomenal increase in the number of ship arrivals and container traffic at the ports in Malaysia throughout the 1990s with the exception in 1998, which was the year immediately after the financial crisis of 1997. For example, as can be seen from tables 5 and 6, the total number of ships calling at ports in the Peninsular Malaysia, as well as the container throughputs in 2000, recorded an increase of 10 per cent and 23 per cent, respectively over their corresponding figures in 1999.

Figure 1 shows the total number of TEUs (twenty feet unit) handled at Port Klang, Penang and Johor and the total number of prime movers and trailers available in the period 1995-2000. It shows that despite the total number of containers arriving at these ports having increased about 2.5 times in this 5-year period, the numbers of prime movers and trailers available for their inland transport have remained almost unchanged.

Table 5. Ship arrivals by ports in Peninsular Malaysia, 1995-2000

No.	PORT		YEAR										
			1995	percentage	1996	percentage	1997	percentage	1998	percentage	1999	percentage	2000
1	Kelang	Number	7 870	21	9 533	15	10 984	(2)	10 764	6	11 439	9	12 416
		GRT (000)	75 982	34	101 588	22	123 556	3	127 142	12	142 228	8	153 016
2	Penang	Number	6 465	1	6 556	8	7 071	15	8 166	(10)	7 341	(1)	7 263
		GRT (000)	27 306	7	29 168	6	30 825	1	31 213	5	29 541	(2)	28 907
3	Johor	Number	5 481	7	5 887	3	6 089	(1)	6 051	(1)	6 001	8	6 485
		GRT (000)	24 737	16	28 652	15	33 025	5	34 560	4	35 859	_	40 737 695
4	Kuantan	Number	1 357	13	1 536	7	1 643	(14)	1 419	7	1 516	11	1 677
		GRT (000)	7 978	19	9 454	17	11 098	(2)	10 849	23	13 357	7	14 307
5	Tg.	Number	0	_	0	_	0	_	0	_	0	_	1 300
	Pelepas	GRT (000)	0	_	0	_	0	_	0	_	0	_	0
6	Others	Number	6 740	32	8 915	(2)	6 895	(67)	2 257	(17)	1 870	(2)	1 826
		GRT (000)	15 031	(6)	14 169	7	15 133	(14)	12 965	(9)	11 760	(19)	9 572
TOTAL		Number	**27 913**	**16**	**32 427**	**1**	**32 685**	**(12)**	**28 567**	**(1)**	**28 167**	**10**	**30 967**
		GRT (000)	**151 034**	**21**	**183 031**	**7**	**213 637**	**1**	**216 729**	**7**	**232 745**		**40 943 497**

Source: Transport Statistics 2000, Ministry of Transport Malaysia.

GRT = Gross registered tonnage.

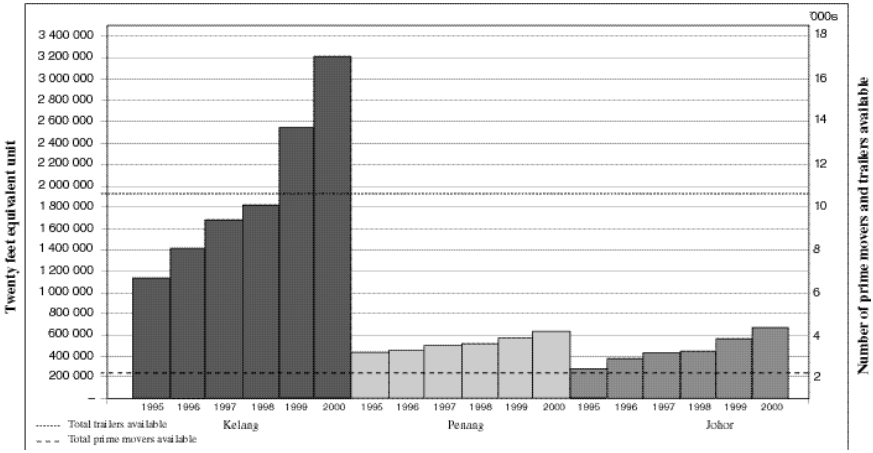
Percentage = Percentage change between the years in the adjoining columns. Numbers in brackets are negative.

Table 6. Total container throughput by ports in Peninsular Malaysia, 1995-2000

No.	PORT	TOTAL (TEUs)										
		1995	percentage	1996	percentage	1997	percentage	1998	percentage	1999	percentage	2000
1	Kelang	1 133 811	24	1 409 594	20	1 684 508	8	1 820 018	40	2 550 419	25	3 206 753
2	Penang	433 474	5	454 765	11	506 863	1	510 307	11	566 409	12	635 780
3	Johor	302 898	25	377 890	14	429 448	2	439 661	27	558 056	18	659 181
4	Kuantan	22 591	81	40 821	34	54 855	(7)	50 989	10	56 056	12	62 783
5	Tg. Pelepas	0	0	0	0	0	0	0	0	0	0	37 539
6	Others	0	0	2 060	12	2 313	(57)	1 000	0	0	0	0
TOTAL		**1 892 774**	**21**	**2 285 130**	**17**	**2 677 987**	**5**	**2 821 975**	**32**	**3 730 940**	**23**	**4 602 036**

Source: Transport Statistics 2000, Ministry of Transport Malaysia (2002).

Percentage = Percentage change between the years in the adjoining columns. Numbers in brackets are negative.



Source: Transport Statistics 2000, Ministry of Transport Malaysia.
Commercial Vehicle Licensing Board, Malaysia.

Figure 1. Total TEU throughput, and prime movers and trailers available, 1995-2000

The number of containers arriving at all ports in 2000 was 4,602,036 TEUs. Based on the movement efficiency ratio of 1 prime mover: 7 trailers: 182 movements a year, as provided by Commercial Vehicle Licensing Board (CVLB), the estimated requirements of prime movers and trailers for the transport of these containers were 3,612 and 25,286, respectively. When these figures are compared with the figures of actually available prime movers and trailers with the five major hauliers (see table 2), it is clear that the prime movers and trailers available to these companies were far short (only about 58 per cent prime movers and 42 per cent trailers) of their estimated requirements. There would been an insufficiency in supply of services if the capacity of the haulage industry had remained the same as that of the total capacity of the five major hauliers in 1999.

III. CONTAINER HAULAGE OPERATION IN MALAYSIA

Road, rail and coastal shipping services are used for container haulage operation in Malaysia. This section provides a brief description of haulage operation by these three modes of transport.

A. Container haulage by road

The container haulage operation by road is a dedicated form of transport, which is designed to haul only containers. It consists of a prime mover or a traction unit and a trailer unit upon which a container is loaded. The traction unit can be attached to or detached from the trailer unit. The trailer unit is designed to take two 20-feet containers or a single 40-foot container.

In Malaysia, a drop-trailer method of operation is generally used in the industry, whereby a container that needs to be stuffed or unstuffed is left mounted on its trailer at its origin or final destination. It is often the case that a container is left at a site for days together with its trailer and is used as a buffer warehouse by manufacturers. Apart from that, trailers are also used at ports for pre-mounting of boxes and then they are left for customs inspection and clearance, which also takes days to complete. (MDS Trans Asia and Economic Planning Unit, PM's Department, 1995).

The availability of trailers for container haulage is greatly affected by their long turnaround time owing to the drop-trailer method of operation. Idle trailers left at the premises of shippers or at ports affect the movement of containers, as they cannot be used for the actual haulage operation. A prime mover, however, can be detached from the trailer and can be used for another operation.

The turnaround time of trailers is also affected by length of haulage. The industrial and manufacturing firms, which represent a large part of container haulage customers, are located over a widely spread geographical area in Malaysia. As such, deliveries and picking up of containers can be a time consuming process, which in turn directly affects the turnaround time and availability of both prime movers and trailers. It may be mentioned here that the industrial ratio for container haulage in Malaysia (prime mover to trailer) is typically 1:6 or 1:7, which is considered to be quite high compared with the ratio of many other regional countries.

Malaysia practices a *merchant haulier* system whereby the importers or exporters are responsible to arrange for the delivery and picking-up of their containers. This is done either by themselves or they use the services of independent freight forwarders.

Bhupinder Singh (2001) states that before liberalization of the Malaysian haulage industry, it was considered to be an oligopolistic cartel, which consisted of five leading haulage firms, namely Kontena Nasional Bhd, Konsortium Logistik Berhad, Diperdana Corporation Berhad, MISC Haulage Services Sdn Bhd and Multimodal Freight Transportation Sdn Bhd. An oligopolistic industry is typically characterised by high barriers to entry that could be due to substantial capital requirements, need for the technical know-how, control of rights to entry and so forth. These characteristics applied to the haulage industry in Malaysia. Apart from the requirement to obtain an operating license through a lengthy process and government control of the number of licence, entry into the container haulage business required large investments in equipment, setting up of an establishment, and sophisticated management and technical know-how to run the business.

B. Container haulage by rail: KTMB container and landbridge services

The container haulage operation by rail is carried out by Keretapi Tanah Melayu Berhad (KTMB), the Malaysian State Railway Authority. KTMB's Freight Service Division is the sole provider of container haulage operation in the country. Apart from container movement from Port Klang, Penang and until recently the Port of Tanjung Pelepas, its rail connection also links to Inland Clearance Depots (ICDs) such as Ipoh Cargo Terminal, Sg Way ICD, Nilai Inland Port and Segamat Inland Port.

KTMB also operates a landbridge service in cooperation with the State Railway of Thailand (SRT) providing cross border movement of containers between Malaysia and Thailand. This landbridge service links the Malaysian ports having railheads with the Lat Krabang ICD in Thailand. The service is currently run by four operators, namely T.S. Transrail (M) Sdn Bhd, Freight Management (M) Sdn Bhd, TS Allied Solution Sdn Bhd and PTP Landbridge Services Sdn Bhd.

Container haulage by rail was developed as one of the means to reduce congestion and improve efficiency of the ports. In 2000, KTMB carried a total of 255,312 TEUs, which represented an increase of almost 200 per cent over the previous year. In order to provide a door-to-door service and improve the quality of service, KTMB has introduced the concept of multi-modal transport in its container haulage operation. It has formed a subsidiary road haulage company called Multimodal Freight Sdn Bhd to facilitate its multi-modal haulage operation.

In order to enhance the capacity of container haulage by rail, the Government has allocated RM 4.5 billion in the Eighth Malaysia Plan (8MP) for double tracking of the main railway line that will eventually connect Padang Besar at the Malaysia-Thai border with Johor Bahru at the Malaysia-Singapore border. Apart from this, the Government is also contemplating a railway link connecting the city of Kunming in China with Singapore via Malaysia, which would further boost the role of railway in container haulage operation.

C. Container haulage by feeder vessels

Feeder vessels and coastal vessels also play an important role in the Malaysian container haulage industry. These vessels are used for the trans-shipment of containers from smaller ports to main ports in Peninsular Malaysia and from the main ports to other ports in the ASEAN region.

The present feeder services that operate from various ports in Malaysia, however, are mostly carried out by Singapore-based companies. According to the statistics obtained from the Maritime Department, Ministry of Transport, a total of 5,220 container feeder vessels and 2,275 coastal vessels called at different ports in Malaysia in 2000.

IV. REGULATORY CONTROL OF THE CONTAINER HAULAGE INDUSTRY

Generally, transport operations in Malaysia are subject to a high degree of regulatory control by the Government. This is particularly so in the case of the container haulage industry, which is regulated by two acts, namely:

(a) Road Transport (RT) Act, 1987;

(b) Commercial Vehicle Licensing Board (CVLB) Act, 1987.

These two Acts are enforced by the Ministry of Transport (MOT) and the Ministry of Entrepreneur Development (MED). All matters concerning the technical and safety aspects of the road transport industry are regulated under the RT Act of 1987. On the other hand, the CVLB Act of 1987 is concerned with licensing of operators and their management. It may be mentioned that an operator who wants to enter into the haulage industry must first apply for a licence from the CVLB.

A. Licensing of commercial vehicles

The CVLB Act of 1987 has empowered the Commercial Vehicle Licensing Board in matters pertaining to licensing of commercial road vehicles and their operation. The regulatory authority exercised by the

Board has important implications in the context of liberalization of the haulage industry.

Without a licence or 'permit' as it is commonly referred to in Malaysia, an operator cannot operate even if a vehicle is to be used for carrying his own goods. There are two types of permits. The first type is a 'C' Licence, which is issued to an operator who is allowed to carry his own goods. The second type is an 'A' Licence, which applies to commercial hauliers. This licence is issued to operators who are allowed to carry goods by using road vehicles for hire or reward.

Both categories of licence are issued to an individual or company and cannot be transferred or assigned to another party without prior notice to the Board. Section 19 (1) of the CVLB Act provides authority to the Board concerning imposition of a wide range of licensing conditions on the operator and his business operations. The Board may at its discretion impose, add, cancel or vary at any time, any of the following conditions:

(a) The specific area, times, and places between which the vehicle shall operate;

(b) The class or description of goods that can be carried;

(c) Individuals/firms for whom goods can be carried;

(d) Imposition of charges and demurrage as specified;

(e) The maximum laden weight that shall not be exceeded;

(f) The information, accounts, documents and records that are to be kept in order and produced on demand.

In order to ensure that new container haulage operators were qualified to get permits to start haulage operation, the Board set several additional qualification requirements. These requirements were considered necessary in order to ensure that the prime objective of liberalization to increase the efficiency of the industry could be achieved and that the new operators were able to provide services that were of the industry standard.

The additional requirements that must be fulfilled by the operators include:

(a) The management and operation of business by the operator himself and prohibition from leasing or renting out the permits;

(b) Running of a 24-hours office by operator;

(c) Having a depot and a vehicle storage centre that have been approved by the local authority;

(d) The obligation to operate at all times and that the haulage operation cannot be stopped during festive seasons;

(e) Employment of trained and licensed drivers;

(f) Equipping with a reliable communication system;

(g) Capacity of vehicles used must be 20 tonne trailers;

(h) The information, accounts, documents and records that are to be kept in order and produced on demand.

Before March 2001 an operator was allowed to operate only in a defined area under the provisions of the CVLB Act. The Board however abolished this provision upon numerous requests from the container haulage operators. However, as mentioned below, a new system of four operational zones has been introduced. An operator is not restricted by geographical operational boundaries within a zone.

The setting of tariff rates is also under the administrative control of the Board. The Board set a minimum charge of RM 174.00 for the first 32 kilometres. The rate however has remained the same over the past 30 years despite calls for its increase by the container haulage operators. According to the operators, operating costs in the industry have increased considerably over the past 30 years. As a result, the profit margin has greatly declined. Apart from that, the cost of purchasing new prime movers and trailers has increased significantly. To provide some relief to the operators, the Government has announced tax incentives in the budget of 2000 for the purchase of new prime

movers. However, this incentive applies only for the purchase of brand new prime movers but not for reconditioned ones.

As mentioned earlier, the licence or 'permit', acts as the main barrier to a new operator who wants to enter the industry. Without the 'permit', an individual or organization interested in the haulage industry cannot purchase, register and operate a container truck, even for moving his own goods.

B. Other means of regulatory control

Besides licensing, there are several other control measures provided by the CVLB Act 1987 and RTA 1987 which are also used to control the road haulage industry. For example, the number of operators is controlled by the Act. Formerly, only 5 container haulage companies were allowed and the number has been allowed to increase to 55 operators in the recent years.

As the Board controls the number of licences issued, it also determines the number of vehicles in the market, which the operators could operate. For example, an operator must maintain a ratio of one prime mover for every seven trailers in his fleet. This ratio represents the container movement efficiency ratio that was set by the Board as a guideline for the industry.

Regulatory control is also applied to the size and capacity of the haulage vehicles. The maximum vehicle dimensions and mandatory technical requirements are specified in the Acts.

For the purpose of fixing tariff rates for container haulage operation, a system of four zones has been introduced as shown in table 7. This zoning system, however, does not restict the movement of hauliers. It merely acts as a guidance to fix haulage rates. The rates are calculated based on the distance travelled from the haulage base (ports) to the premises of the customer. It accounts that for the first 32 kilometres from the haulage base, a minimum of RM 174.00 should be applied. The rates also differ from every haulage base to the final destination. For example, the rates from Penang Port and Johor Port to Kuala Lumpur differ according to the distance.

Table 7. Zone system

No.	Zone	Haulage base
1	Northern	Penang Port and Ipoh Cargo Terminal
2	Central	Port Klang
3	Southern	Johor Port – Pasir Gudang and Tanjung Pelepas Port
4	Eastern	Kuantan Port

V. IMPORTANT ISSUES

The liberalization of the container haulage industry in Malaysia has achieved its main objective of increasing the efficiency in the industry in general. The manufacturers and customers of the container haulage industry have been benefited in controlling their total transport costs. They can clear their containers from the ports in a much shorter time period of three to five days and thus avoid storage charges at the ports.

However, it has also led to some unintended results. The move to allow 50 new operators within a period of 5 years has created an excess supply of services in the midst of a shrinking market. This has created some instability in the market. In view of this and other problems faced by the haulage industry, the following two major issues have been identified which require attention of the concerned authorities. Given the complexity of the issues and their possible far-reaching effects on the road haulage industry, it is recommended that further studies need to be undertaken to examine their effects both in the short- and long-term as well as to find their appropriate solutions.

A. Excess capacity and efficient utilization of resources

It is understood that applications of 10 more new operators are being processed by CVLB who are expected to join the industry by the end of the year 2002 or early 2003. This would raise the total number of operators from the current 55 to 65. As of now, there is no indication as to whether the Government would stop issuing licenses to any more new operators.

While numerical proliferation of operators in the past has certainly helped to improve the overall efficiency of the industry to some extent, any further improvement would greatly depend on increasing the operational and organizational efficiency of the operators and not so much on their sheer numbers. Given the existing excess capacity, which may further be increased through institutional changes and improvement of logistics, greater considerations should now be made on the improvement of quality of services through better utilization of existing resources and changes in management and operational practices in the industry. Higher efficiency in resource utilization would reduce the necessity of new investments. This shift of focus would help to maintain stability in the container haulage industry and prepare it better to take the new challenges from the external environment, as well as capture new business opportunities that would be created through opening up of the regional market.

There are many different ways to improve the quality of services and increase the efficiency of resource utilization. For example, "Shippers' Charters" and the ISO 9000 have specific recommendations for these purposes. As suggested above, these recommendations need to be investigated in the Malaysian context through an in-depth study with wide participation of all parties involved with the industry. The results of such a study would help the Government and the industry to scrutinize the real ability of the operators and identify the root causes of the problem and their solutions through specific actions by each of the parties involved.

The study may consider both regulatory and non-regulatory measures. While the regulatory measures on qualitative aspects of service and operations could be incorporated as conditions of licensing, the non-regulatory measures, depending on their nature, could be implemented by the Government or the industry. It needs to be emphasized here that further improvement in efficiency of the industry through better utilization of resources and improvement of service quality would be much needed to ensure the viability of the industry in the face of forthcoming challenges after the implementation of the ASEAN Free Trade Area (AFTA).

B. Reviewing the container haulage rates and tariffs

There is a need for a review of the current tariff rates in the container haulage industry. The rates have remained fixed for 30 years. Over the years, the costs of container haulage have increased considerably. As a result, the profit margin of the operators has been greatly reduced. To look into the problem, the in-depth study suggested in section V.A may also consider how much reduction in costs could be possible through efficiency gains in the industry. A separate study may also be considered to examine the current cost structure of the industry and review the existing tariff rates. However, interests of all stakeholders, not just the haulage operators, should be taken into account in any review of the tariff rates.

CONCLUSION

The liberalization of an industry may have both positive and negative effects. However, their relative magnitudes depend on how the liberalization measures were implemented. A detailed study is required to know all the pros and cons of the intended liberalization measures before the moves should be taken. The experiences of liberalization of the road container haulage industry in Malaysia is a good example that shows the necessity of such a prior study to reap the full benefits of liberalization.

With the increase in capacity of the haulage industry, the overall efficiency of the logistics chain in Malaysia has greatly improved. Malaysian ports have experienced greater efficiency by reducing the congestion level at the ports tremendoulsy. This has allowed greater movement of containers at the ports. Haulage customers are now enjoying better services owing mainly to reduction of delays in delivery, avoidance of storage and detention charges at the ports and better terms of service offered by the hauliers.

However, this does not mean that the move to liberalize the industry has been a complete success. The rapid increase in the number of operators has created excess capacity, which has given rise to an unhealthy trend in the industry and the financial sustainability of the operators is at risk. With the implementation of AFTA, the industry

will be exposed to a greater level of uncertainty in the face of competition from foreign operators. In this condition, leaving the matter in the hands of the market alone may not result in a desired situation and could give rise to more complex problems in the future.

The industry at the moment faces an uphill task of reorganizing itself and shaping up for the future challenges. The prospect of the industry however looks bright if all parties are willing to provide cooperation and join hands to face future challenges. For now, the anticipated economic recovery has shed some light for the future that looked dim two years ago.

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INFORMATION NOTE

INNOVATIVE APPROACH IN ATTRACTING PRIVATE SECTOR INVESTMENT IN INFRASTRUCTURE: EXPERIENCE OF BANGLADESH[1]

INTRODUCTION

Lack of adequate infrastructure is currently hindering the expected economic growth in Bangladesh. Infrastructure development is essential for reducing poverty and improving the living standards of its citizens. In addition to low accessibility, the quality and reliability of infrastructure and its associated services are also very poor. The country needs huge investment in order to improve the infrastructure necessary for higher economic growth.

The Bangladesh economy is currently growing at around 5 per cent annually. Inflation is modest and comparable to that in Western Europe. Domestic savings are sizeable. The Government however, recognizes that the large amount of funds needed for the development of infrastructure are unaffordable from their budget. The international development partners are unwilling to fund many of the large infrastructure projects, but prepared to consider helping Bangladesh in private sector led investments.

Bangladesh also recognizes that it has to address the question of subsidies. Encouragement of the private sector has been identified as the solution to better efficiency and reduction of losses within the public sector companies.

[1] This information note has been put together based on materials prepared for Infrastructure Investment Facilitation Centre (IIFC), Bangladesh, by three advisors of Atos KPMG Consulting, namely Mr. Eirc Daffarn, Mr. Skylark Chadha and M. Rahmatullah.

Bangladesh's Industrial Policy 1999 included infrastructure as a thrust sector to be supported by special incentives and to that end it acknowledged the lead role of the private sector. It was however recognized that strategies, creation of conducive environment and supportive policies would be needed if private sector investment in infrastructure were to be promoted on a priority basis.

In many countries, the provision of infrastructure facilities has traditionally been the responsibility of the Government because of their "public goods" characteristics. This notion is, however, changing. The current trend is to allow the private sector to take a lead role in providing infrastructure projects and release scarce public resources for investment in social and human development sectors.

However, the Government will still continue to have an important role in creating an enabling environment conducive to private sector participation (PSP). The direct role of the public sector in the provision of infrastructure services should, however, be limited to areas where commercial viability is incompatible with public policy.

There is a fundamental difference between the processes through which a non-infrastructure project and an infrastructure project are taken up. The private investors are "free" to undertake a non-infrastructure project, at any time, in accordance with market demand, provided normal government permits and licences are obtained. But the private sector investors cannot undertake an infrastructure project whenever they desire. The decision as to whether an infrastructure project will be carried out through public financing or private financing lies with the Government.

In order to ensure the supply of accessible, affordable and reliable infrastructure, it is necessary to encourage the private sector to be engaged in the financing, construction and operation of infrastructure projects. To this end, the Government will be required to create an environment that encourages competition, efficiency and better services at affordable costs resulting in creation of best value for the country. The Government needs to move away from being the provider of infrastructure services and undertake the role of planner, policy maker and promoter of legislation.

It was in the light of the above background and in pursuance of the budget speech 2002 of the Minister for Finance and Planning, Government of Bangladesh, the Planning Commission requested the Infrastructure Investment Facilitation Centre (IIFC)[2] to come up with a draft private sector infrastructure development policy (PSIDP) designed to encourage private sector investment in infrastructure sectors. IIFC has completed the task in consultation with the stakeholders and the draft policy is currently under active consideration of the Government.[3] A series of presentations on PSIDP had been made to officials of all ministries related to infrastructure development. Their comments, if any, are now awaited. A similar strategy has been planned to expose the private investors and the Chambers of Commerce and Industries, to the main elements of the PSIDP. Meanwhile, a presentation on PSIDP has been made to the members of the Foreign Investors Chamber of Commerce and Industries (FICCI), Dhaka.

One of the major thrusts of PSIDP is the recognition that the private sector would be the major infrastructure player in the country. Under the policy all new and viable infrastructure projects are required to be offered first to the private sector. That is how priority would be given first to the private investor in infrastructure development in the country.

I. PAST EXPERIENCE OF PRIVATE SECTOR PARTICIPATION IN INFRASTRUCTURE DEVELOPMENT

In Bangladesh, infrastructure facilitates and services are dominated by the public sector and most infrastructure services are heavily dependent on public subsidies. Private sector investment in Bangladesh's infrastructure development so far has essentially been limited to power generation and cellular telephony. In some areas, such as highways, the Government is, in essence, a competitor with the private

[2] Infrastructure Investment Facilitation Centre (IIFC), is a company fully owned by the Government of Bangladesh, and was established to facilitate private sector investment in infrastructure development. For more details about IIFC, readers are referred to the article by Nazrul Islam in volume 72 of the *Bulletin*.

[3] The draft policy is available at <http://www.iifc.net/psf_policy_revised_date_20jan03.pdf> (2 June 2003).

sector as a potential provider of infrastructure. The Government also gets involved in price setting, as most of the sectors do not have any independent regulator and the Government yet have the legal framework to appoint independent regulators for each sector.

While the Government has plans to go for reforms to address the above-mentioned deficiencies, it has identified the following infrastructure sectors for attracting private funds:

- Telecommunications
- Energy and mineral resources
- Transport (roads, bridges and railways)
- Ports, shipping, and inland waterways
- Water resources
- Civil aviation and tourism
- Major urban development and solid waste management
- Science, information and communications technologies (ICT)

The first private sector investment in Bangladesh relating to infrastructure took place in 1974 through unsolicited proposals submitted by some oil companies, leading to exploration for oil and gas. These were contracted out on a production-sharing basis.

In the telecommunications sector, private sector investments started in 1989 through contract negotiations based on unsolicited proposals for cellular phony. Later, a number of contracts were signed and private sector investments task place in cellular as well as fixed telephone lines, paging facilities and riverine communications through a formal procedure of solicited proposals.

Compelled by the power shortage in the country, the Government of Bangladesh established a Power Cell in 1995 under the Power Division of the Ministry of Energy and Mineral Resources. The Cell was mandated to assist in establishing independent power plants (IPPs), and to development policy and regulatory frameworks for the power

sector. The Power Cell together with the Bangladesh Power Development Board (BPDB) coordinated private sector involvement in the establishment of several major power stations, as well as several smaller power stations to facilitate rural electrification in the country.

In the light of the above developments, one of the major thrusts of PSIDP is to develop a realistic and meaningful portfolio of private sector infrastructure projects and bring out an independent publication, containing a one-page "project brief" on each of the listed projects. The procedure to be adopted for identification of projects is spelled out in PSIDP. It has been proposed that the Planning Commission would oversee the strict compliance of the policy.

PSIDP is applicable to both new infrastructure projects (greenfield projects) as well as existing infrastructure assets in the public domain. Its principal objective is to promote efficient management and operation through a capitalization process, which would allow the Government to realize up front the future earning potential of the assets. For effective implementation of the policy, the Government will create a favourable business and regulatory environment, including appointment of independent regulators who will have the responsibility of increasing fair competition in the infrastructure sectors.

PSIDP emphasizes that the private investors be selected through a transparent and competitive bidding process. Once a project has been identified as a private sector project, it will not be taken up as a public sector project unless investors' interest had been fully tested through at least two rounds of bidding and the private sector could not be made interested in that project.

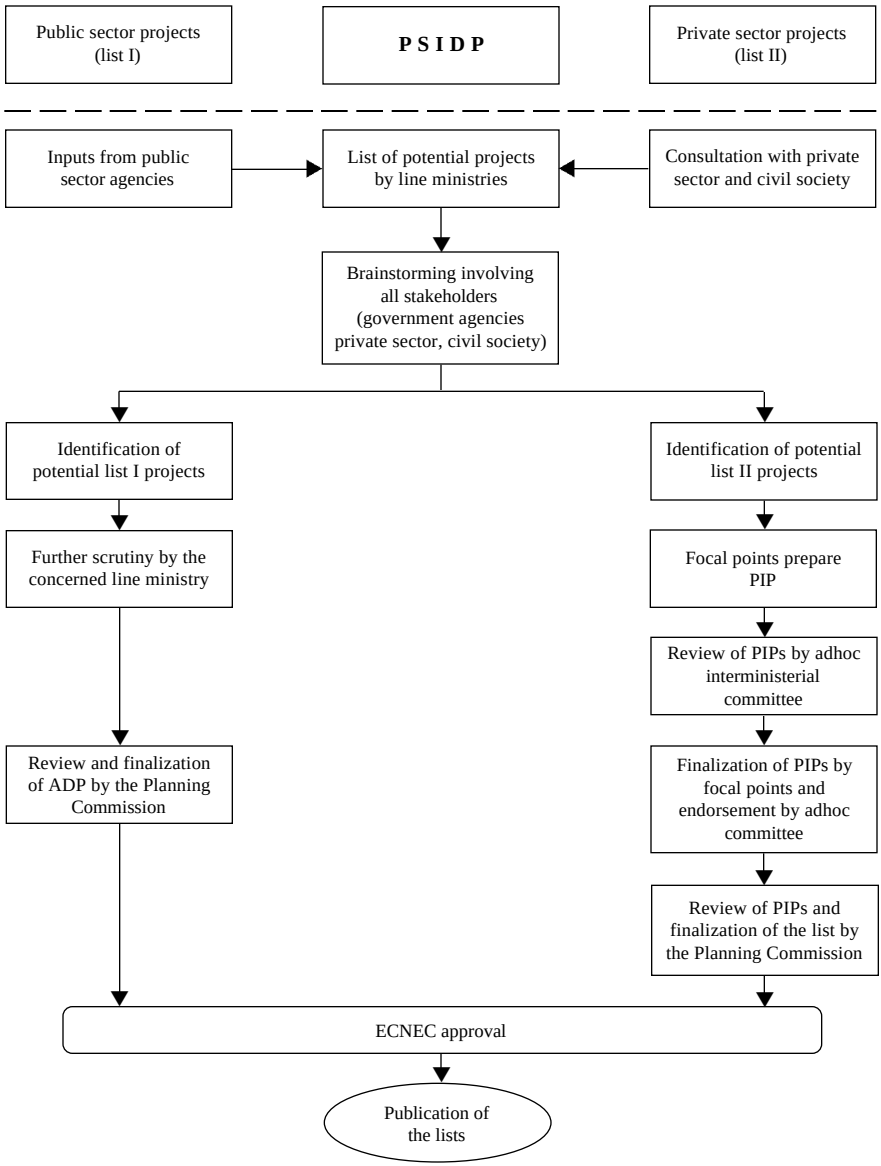
PSIDP, once adopted by the Government, will generate political commitment from the highest circles for private sector involvement in infrastructure projects. Effective implementation of the policy will reduce the fiscal burden on the part of the Government of Bangladesh by allowing the private sector to take an increasing role in the provision of infrastructure facilities and taking an appropriate share of the risk.

II. IDENTIFICATION OF PRIVATE SECTOR INFRASTRUCTURE PROJECTS

One of the major thrusts of PSIDP is to identify a number of private sector infrastructure projects, which could be included in the list of private sector projects. Currently the Government does not maintain any portfolio of projects which could be considered by private sector investors. As a result any project proposed by the private sector becomes unsolicited. In the absence of any approved and transparent procedure available for considering unsolicited projects, the Government has often landed into controversies in dealing with such projects.

The implementation of PSIDP is expected to address the above problem through the proposed project selection process for both the private and public sectors as depicted in the figure. Under the policy, each infrastructure line ministry will prepare a list of projects (to be implemented under both public and private sector financing) and develop a short write-up for each project in the form of project briefs that describes the rationale for the project, how it creates value for the country and how it could be implemented. Consultations will be held with the private sector (represented by the chambers of commerce and industries as well as individual investors) and civil society (including the media). This participatory process is a key element of the policy. Each infrastructure ministry will invite suggestions from the private sector and other key stakeholders in the public sector, as early as possible in the process, but not less than 12 weeks before the end of the financial year (i.e., end of June).

With a view to making the planning process transparent and participatory, a brainstorming session will be organized by the line ministry with the support of IIFC, if necessary, not later than nine weeks before the end of the financial year. The concerned officials of the ministries, sector agencies, Planning Commission, Privatization Commission, representatives of the private sector, development partners and civil society will participate in the session. The relevant Member of the Planning Commission will chair the session. The session will prioritize the list of projects prepared by the line ministry based on certain guidelines to be issued by the Planning Commission and then include each project either in list I (public sector), or list II



Note: ADP = Annual Development Programme
ECNEC = Executive Committee of the National Economic Council
PIP = Potential investment paper
PSIDP = Private Sector Infrastructure Development Policy

Process for the identification of infrastructure project by the private sector

(private sector). While the projects in list I (public sector projects) will be further looked into by the line ministry and submitted to the Planning Commission for inclusion in the Annual Development Programme as part of the established procedure, the projects in list II (private sector projects) will be sent to the focal points created in the infrastructure line ministries for coordination of all matters connected with the private sector. The focal point group will be manned by staff members from the ministries and agencies having interest in developing projects for the private sector.

The Focal Points will compile additional information collected from the proponents of various projects included in list II, and also take into account seriously the comments made at the brainstorming session. One of the major responsibilities of the focal point would be to prepare the potential investment paper (PIP) to assess if the projects satisfy the basic criteria i.e., as to whether the project will create economic value for the country; whether it is commercially viable and bankable; and whether the projects enjoy Government's commitment and private sector's interest. The focal points will also examine the calculation on project viability, test them and refine them. It will also verify sources of information and their reliability, prepare a report to accompany PIP and offer its views concerning the projects for consideration by the adhoc interministerial committee.

An adhoc interministerial committee will be established in each line ministry with representation from line ministries, agencies, private sector, Planning Commission, Economic Relations Division (including IIFC) that will review PIP prepared by the focal point in the ministry. The adhoc committee will have a key role in reviewing all private sector projects intended for final inclusion in list II. It will also review new projects arising during the year including unsolicited proposals.

The overall objective of the adhoc interministerial committee is to ensure that projects are in line with the principles of PSIDP. They will judge whether PIP is of sufficient quality and reliability (in terms of assumptions, thoroughness of the project concept); whether the approach and the broad structure of the project is likely to provide the best value for the country, and finally decide whether the project as proposed should be included in the final list II.

The review by the adhoc interministerial committee should be completed within a week of receiving PIPs. The focal point will incorporate within two weeks any revisions/modifications proposed by the adhoc committee. Based on the endorsement of the final PIPs by the adhoc committee, the Secretary of the concerned line ministry will forward the list of the projects together with PIPs to the Planning Commission, recommending their inclusion in the list of private sector infrastructure projects.

The relevant Member of the Planning Commission will examine PIPs for his sector for completeness and will forward the list to Member (Programming). The Member (Programming) will review the lists of public and private sector projects to check whether the principles of PSIDP have been properly addressed or not. After such reviews are completed a list of private sector infrastructure projects, supported by a one-page write up on each in the form of a project brief, would be finalized.

In connection with the preparation of a list of private sector infrastructure projects (list II) for the year 2003-2004, this being the first year, and the procedure being new, the stakeholders do not have prior experience as to how to go about it. In view of this, at the request of the Planning Commission, IIFC has already taken the initiative to assist the line ministries and the private sector in familiarizing them with PSIDP and the procedures for identifying projects for inclusion in list II. In all, about 60 projects in the domain of 8 infrastructure related ministries have already been identified using certain criteria developed earlier for the purpose. The ministries include: Shipping, Communications, Energy and Mineral Resources, Water Resources, Civil Aviation and Tourism, Housing and Public Works, Science and Information and Communications Technology, Telecommunications and the Bangladesh Telecommunications Regulatory Commission.

Separate presentations on PSIDP and the identified projects were made to the senior officials of each ministry. In general, ministries were very supportive of the policy (PSIDP) and the type of projects identified. A one-page policy brief was developed for each project and concerned ministries are currently examining these briefs. A presentation on PSIDP was also made to the Foreign Investors Chamber of Commerce

and Industries (FICCI), Dhaka to keep foreign investors fully aware of investment opportunities.

Meanwhile, it has been decided in principle to bring out a separate publication on potential private sector infrastructure projects together with their briefs. An interministerial meeting of infrastructure related ministries is scheduled in June 2003 to finalize the list of private sector infrastructure projects. Following the finalization of the list, the above-mentioned publication will be brought out for wider circulation.

CONCLUDING REMARKS

The approach indicated above has been described by some of the private sector investors as a unique initiative. Until now most of the private sector investments in Bangladesh have been made based on unsolicited proposals. In the absence of any established and transparent procedure for processing unsolicited projects, the Government has often landed into serious controversies in dealing with such projects.

A publication on potential private sector infrastructure projects would go a long way in addressing many of the problems that were faced earlier. Private sector investors will have a clear idea as to what is there for them in Bangladesh. The Government of Bangladesh will now be expected to undertake further work on the projects identified, which may include undertaking feasibility studies, developing the project further, preparing bidding documents and going for open tendering so that private sector investors can freely compete.

Further work is continuing to make sure that PSIDP is adopted as soon as possible. This would be a major step considered essential in bringing sustainability in the process for identifying projects and bringing out a publication on potential private sector infrastructure projects on an annual basis.

Transport and Communications Bulletin for Asia and the Pacific

General guidelines for contributors

1. Manuscripts

One copy of the manuscript in English should be submitted together with a covering letter to the Editor indicating that the material has not been previously published or submitted for publication elsewhere. The author(s) should also submit a copy of the manuscript on computer diskette, labelled with the title of the article and the word-processing program used, or by e-mail as an attachment file. MS Word and WordPerfect are the preferred word-processing programs.

The length of the manuscript, including tables, figures and bibliographical references, should not exceed 7,500 words. Manuscripts should be typed on one side of A4 paper in double spacing and pages should be numbered. A list of references should be included. Manuscripts are subject to editorial revision.

The title page should contain (a) title; (b) name(s) of the author(s); (c) institutional affiliation(s); (d) complete mailing address, e-mail address and facsimile number of the author, or of the principal author in the case of joint authors; and (e) an abstract of approximately 150 words clearly stating the main conclusions of the article. Acknowledgements, if any, should appear at the end of the text.

Articles should include a final section containing the main conclusions, which should be broadly intelligible to a non-specialist reader.

2. Tables

All tables should be clearly headed and numbered consecutively in Arabic numerals. They should be self-explanatory. All tables should be referred to in the text. Full source notes should be given below each table, followed by general notes, if any. Authors are fully responsible for the accuracy of the data.

3. Figures

All figures should be provided as camera-ready copy and numbered consecutively in Arabic numerals. All figures should be referred to in the text. Full source notes should be given below each figure.

4. Footnotes

Footnotes, if any, should be brief and numbered consecutively in superscript Arabic numerals. Footnotes should not be used for citing references.

5. References

There should be a complete reference for every citation in the text. References in the text should follow the author-date format, for example (Sadorsky 1994), or (Skeldon 1997: 243). Only those references actually cited in the text should be listed and these should appear in alphabetical order at the end of the manuscript. References should be in the following style:

[Book]
Skeldon, R., 1997. *Migration and Development: A Global Perspective* (London, Longman).

[Chapter in book]
Krueger, Alan, B. and Lawrence H. Summers, 1987. Reflections on the inter-industry wage structure, in K. Lang and J.S. Leonard, eds., *Unemployment and the Structure of Labour Markets* (London, Blackwell), pp. 40-49.

[Article in journal]
Wachs, M., 1990. Regulating traffic by controlling land use: the southern California experience, *Transportation*, vol. 16, No. 3, pp. 241-256.