

## Chapter 5

### Pipavav Port Rail Connectivity

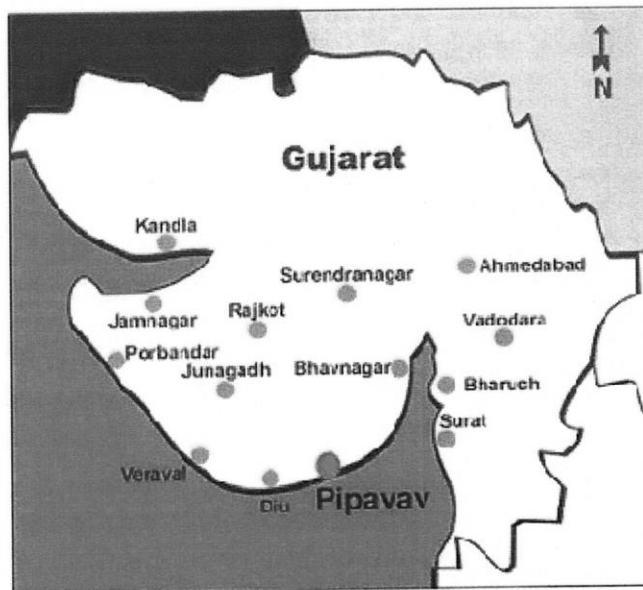
#### General

Port Pipavav is located at Latitude 20 54N and Longitude 71 30E on the west coast of India, in the state of Gujarat. For decades the port was functioning as an anchorage serving the then existing minor Port called Port Albert Victor. It is protected by islands on either side, which act as a natural breakwater making the port safe in all weather conditions. The presence of these islands also leads to the tranquility in the harbor as well as ensures the wave height is less than 0.5m most of the time.

In 1992, it was decided to develop the port as an all weather facility for handling bulk, liquid and container cargo. A private limited company called Gujarat Pipavav Port Limited (GPPL) was incorporated as a joint venture between Sea King Infrastructure Limited and Gujarat Maritime Board, a state owned organization.

General cargo handling operations at the Port commenced in November 1996 followed by container handling operations in 1998. Presently, the container terminal offers direct services to Europe, US East Coast, China and the Far East. Port Pipavav is today recognized as one of the principal gateways on the West Coast of India.

The port is being developed for handling 19 million tonnes of cargo per annum including 13 million tonnes of containerized cargo. APM Terminals is making an investment of US\$ 245 million to develop the facilities. With available draft of 13.5 metres, the port is also able to handle Post-Panamax vessels.



### Connectivity

Initially, there was no rail connection to the port. The nearest railhead was located at a distance of 18 km on the Rajula-Surendranagar metre gauge line of Western Railway, beyond which the broad gauge rail network was available. In the absence of a rail connection, the Port could not be adequately developed; hence its keenness for a proper rail connectivity, preferably a broad gauge rail link.

Indian Railways had earlier sanctioned a project to convert the existing Rajula-Surendranagar metre gauge line into broad gauge as a part of the railways' long-term plans for broad gauge network on the entire system. However, financial constraints had prevented its timely execution. In the meanwhile, the Ministry of Railways launched a programme for undertaking rail projects through public-private partnership.

In 1998, GPPL proposed a joint venture with the Ministry of Railways to undertake the rail connectivity project which would include provision of a rail link of 18 km and conversion of the existing meter gauge line. Detailed feasibility studies and traffic projections established the financial viability of the proposed project. A memorandum of understanding (MoU) between Ministry

of Railways and Gujarat Pipavav Port Limited was signed on 28 January 2000.

Based on the techno-economic studies, a business plan of the proposed joint venture was prepared by financial consultants engaged by GPPL. This plan was reviewed in the Ministry of Railways, who then obtained formal approval of the Government of India. As a follow-up, Pipavav Railway Corporation Limited was incorporated in May 2000 as a joint venture with equal participation between the Indian Railways and the Gujarat Pipavav Port Limited.

The above was followed by a host of agreements between various stakeholders – Ministry of Railways, Western Railway (a constituent of Indian Railways), Gujarat Pipavav Port Limited, Pipavav Railway Corporation Limited. A Shareholders Agreement between MOR and GPPL was signed on 28 March 2001, Concession and Lease Agreements between MOR and PRCL on 28 June 2001.

The Construction Agreement for the project between PRCL and Western Railway was signed on 13 March 2002, followed by Operation and Maintenance Agreement in January 2003. The Transportation and Traffic Guarantee Agreement was signed between GPPL, PRCL and Western Railway in February 2003. The table below shows the various contractual agreements and the dates of their execution between different parties.

**Table 1: Chronology of Agreements**

Sl. No.	Agreement	Parties to Agreement	Date
1	MoU for formation of SPV	MOR and GPPL	20.01.2000
2	Concession Agreement	MOR (GOI) and PRCL	28.06.2001
3	Lease Agreement	MOR (GOI) and PRCL	28.06.2001
4	Construction Agreement	PRCL and Western Railway (GOI)	13.03.2002
5	Memorandum and Articles of Association of PRCL	PRCL	17.04.2002
6	Operation and Maintenance Agreement	PRCL and WR (GOI)	15.01.2003
7	Transportation and Traffic Guarantee Agreement	GPPL; WR and PRCL	15.02.2003
8	Shareholders Agreement	MOR and GPPL	28.03.2001

### **Concession Agreement**

Under this agreement, the President of India through the Ministry of Railways is the 'Licensor' and PRCL is the "Concessionaire" for the project. The concession period is for 33 years and permits PRCL to own and operate the project line both for freight and passenger operations. It enjoins upon the SPV to pay lease rent of Rs. Two crore per year to the Ministry of Railways for the use of land and other assets. In turn, the railways would pay to PRCL the apportioned revenue derived from the freight moved on the rail line after deducting the operational expenses. The revenue derived from passenger services is not apportioned, since there is a heavy subsidy component in the fare structure.

### **Transportation and Traffic Guarantee Agreement**

Under this agreement, WR guarantees evacuation of traffic from the port by timely supply of wagons, and GPPL guarantees traffic of one MT in the first year, two MT in the second year and three MT in the third and each of the subsequent years. Failure on the part of either party attracts penalties. Shortfalls in offering of traffic on the part of GPPL or its evacuation

by the railways is to be converted into 'deemed traffic' and proportionate revenue is to be credited to PRCL as compensation.

### **Construction Agreement**

This agreement enjoins upon Western Railway to design and construct the railway line with the SPV procuring and supplying the construction materials. The specifications and standards laid down by the Ministry of Railways were to be followed.

### **Operations and Maintenance Agreement**

It lays down the process, procedure and accountal of operating and maintenance practices to be followed by Western Railway and the SPV.

It would be seen that there was a considerable time lag from the conceptualization of the project to the execution of various contractual agreements specifying the roles and responsibilities of the concerned stakeholders. This was mainly due to the fact that PRCL was the first joint venture under the Ministry of Railways and all agreements had to be evolved *ab initio*. There was also the usual bureaucratic zeal observed for safeguarding the interests of the government, with a mindset not fully attuned to the new paradigm of public-private partnership. Furthermore, all agreements had to be vetted by the Ministry of Law, Government of India.

### **Project Profile**

The total length of project line is 268.84 km. A metre gauge (MG) railway line existed between Surendranagar and Rajula Junction. This stretch was converted to broad gauge. A new line of 18 km length was constructed between Rajula and Pipavav station. The alignment traverses Surendranagar, Amreli and Bhavnagar districts in Gujarat.

The broad gauge rail line (1,676 mm gauge) was constructed fit for a maximum speed of 100 kmph. Standard III inter-locking is provided with Multi-Aspect Colour Light Signals and token-less block instruments. Level crossing gates are inter-locked by signalling with adjoining stations.

The project involved construction of 198 bridges: 32 major and 166 minor bridges on the gauge conversion route and three major and sixteen minor bridges on the new line section between Rajula and Pipavav. In the gauge conversion section (between Surendranagar and Rajula), the existing station buildings were utilised and two new stations were built, one each at Rajula and Pipavav. There are 35 railway stations on the rail route from Surendranagar to Pipavav.

### **PRCL's Promoters**

PRCL was promoted by the Ministry of Railways (Govt. of India) and GPPL.

**Ministry of Railways:** Railways are a full fledged Ministry with a Minister of Cabinet rank holding charge. IR is fully owned by the Government of India, administered by Railway Board. Indian Railways (IR), the fourth largest railway network in the world, has a route length of 63,500 km. IR has 1.5 million employees running over 8,000 passenger trains and 5,500 freight trains every day. It moves over 17 million passengers and 2.0 million tones of goods daily. Its rolling stock fleet includes some 8,300 locomotives, 4,400 coaching vehicles and 210,000 freight wagons.

**Gujarat Pipavav Port Limited:** Gujarat Pipavav Port Limited (GPPL) is one of the first private sector ports in India. It was incorporated in 1992, as a joint venture between Sea King Infrastructure Limited (SKIL) and Gujarat Maritime Board for developing and operating an all-weather port for handling bulk, liquid and container cargo at Pipavav, in Amreli district of Gujarat. The cargo handling operations had commenced in 1998.

GPPL's principal shareholders are:

- i. A.P.Moeller-Maersk Sealand (APMT/Maersk), one of the largest port container terminal operators in the world and the largest container shipping line, with around 20 percent worldwide market share. It holds 50.76 percent shares. APMT/Maersk is in the process of developing the Pipavav port into a world-class port with state-of-the-art container handling facilities and terminal management.

- ii. AMP Capital Investors,
- iii. New York Life International India Fund,
- iv. Industrial Development Bank of India (IDBI),
- v. Unit Trust of India (UTI) and Infrastructure.
- vi. Leasing and Financial Services Ltd. (ILandFS)

The key developments from conceptualisation of Pipavav port to APMT/Maersk taking over its management control have been as follow:

- 1986 - Gujarat Maritime Board (GMB) initiates development of Pipavav Port
- February 1992 – GMB enters into an MoU with Sea King Infrastructure Ltd. (SKIL) group led by Mr. Nikhil Gandhi
- June, 1992 – MoU converted into Joint Venture agreement
- July, 1997 – Government of Gujarat (GoG) announces BOOT Policy - June 1998 – GMB divests its entire equity in favour of SKIL Group - July 1998 – GoG declares 'Model Concession Principles' for ports
- September, 1998 – Concession Agreement based on 'Model Principles' signed
- September, 1998 – Lead promoter SKIL licensed to develop, operate, and maintain the port
- April, 2005 – GoG agrees to change the promoters – SKIL group to A.P.Moller-Maersk group, Denmark
- May, 2005 – APM Terminals takes full management control of the port

GPPL is planning to enhance its cargo handling capacity to 19.16 MT by 2009-10, including 13.70 MT of containerised cargo and 5.56 MT of bulk cargo. The port expansion programme is being taken up in three phases with a capital investment of Rs.1,167.30 crore which is through equity contribution of Rs.200 crore, internal accruals of Rs.289.04 crore and debt of Rs.596.26 crore. A.P.MollerMaersk has committed an investment of Rs.1,200 crore for port infrastructure development. Three quay cranes will be installed for container-handling facilities in addition to the existing three quay cranes to enhance the container handling capacity to one million TEUs. GPPL commenced capital

dredging project in December 2005 which was completed by April, 2006 to increase the draft to 13.5 m to handle post-Panamax vessels.

Maersk Sealand, the port operator, has started dedicated weekly service between Pipavav and Salalah (Oman) and Jebel Ali (United Arab Emirates), which has contributed to increase in container throughput at Pipavav port.

### **Shareholders Agreement**

The basic structure of the company (PRCL) is defined in the Shareholders' Agreement (SHA). In addition, the other formalities like registration of the Company, Memorandum of Articles of Association, registration with various government revenue agencies like Sales Tax etc were also completed. The salient features of the SHA are given in the table in Annexure - B.

### **Project Implementation Process**

**Project Development Phase:** The gauge conversion of the Surendranagar Rajula MG line was an approved work of the WR to be completed at railways cost. However, it was not a priority line and therefore annual fund allocations were very meagre. In normal course, if the WR were to complete the conversion, it could take anything between 10- 15 years. It was not coinciding with the port development plans and hence the need for GPPL to contribute to the gauge conversion costs.

**Construction Phase:** The construction phase started on the date of signing the construction agreement on 13<sup>th</sup> March 2002. Till then WR had been carrying out preliminary works on the erstwhile sanctioned Railway Gauge Conversion Project which mainly related to the strengthening of bridges and structures for BG trains.

The Construction Phase was divided into the following main activities: -

Procurement of material by PRCL

- Transportation to sites by PRCL
- Testing and certification of specifications by WR
- Labour contracts for track laying and linking by WR

- Signalling and telecom works, station buildings by WR
- New bridges for the new line between Rajula-Pipavav by WR
- Consolidation of track, testing and safety certification by WR

The main items of procurement were the following:

- Rails
- Concrete sleepers
- Stone ballast
- Rail switches
- Rail turnouts and traps
- CMS rail crossings
- Glued joints
- Track fastenings
- Sleeper fastenings
- Signalling cables

In addition to the above materials, tools and material handling and transportation equipments like motor trolleys, road trucks and rail grinding and drilling machines, etc. were also procured for reducing the man power requirement by mechanization of processes. A Tender Committee was set up with Directors of PRCL Board representing MOR, GPPL and the CEO of PRCL to finalise procurements. Orders were placed and PRCL Board was apprised of the progress periodically.

**Placement of Orders:** A strategy of splitting the orders for the same item among several suppliers was adopted. Incentives were given to suppliers for supplies made before time. Since Bhilai Steel Plant and IR had initially regretted to supply rails, international bids were called for. This process took a long time as it involved inspection of the mills abroad by RDSO teams, production of samples by the mills and their testing as per IR standards. To save time, MOR was requested for a loan of 5000 mt to be

replaced later by PRCL supplies. This was done. Later, Railways agreed to release the supply of entire requirement from Bhilai.

Orders for 30,000 mt of rails were placed on SAIL in September 2002 with stipulated supply within 3 months, i.e., by the end of December 2002 at Sabarmati. To reduce the costs of rails, PRCL obtained a license under EPCG scheme which saved payment of Central Sales Tax.

Orders for other materials were placed in May-June 2002 for supplies to be made between September and December 2002. These included concrete sleepers, stone ballast, rail switches, rail turnouts and traps, CMS rail crossings, glued joints, track and sleeper fastenings and signalling cables. All orders were supplied in time.

**Transportation to sites by PRCL:** Except for rails all the contracts for supply were CIF site. The major item for transportation was rails which required two-stage movements: from Bhilai to Sabarmati and then to designated sites. Railways provided the BFR rakes at Bhilai which were closely monitored. For transportation to sites from Sabarmati, close circuit MG rakes of BFRs were formed and deployed.

**Testing and certification of specifications by WR:** A team of engineers of WR was formed to be available at sites at the time of arrival of consignments. A monitoring team was in position in PRCL office to watch day-to-day arrival of different materials at various sites and a team of supply 'chasers' was deployed at important suppliers' locations. These teams, working in tandem, kept WR informed of the arrival dates to ensure inspection and certification. In the case of ballast, several laboratories were approved for testing.

Labour contracts for track laying and signalling and telecom works were fixed by WR including station buildings and staff quarters.

### **Strengths of the Project**

Both shareholders, namely, MOR and GPPL have gained substantially by the Joint Venture arrangement of implementation.

### **Gains to MOR:**

- It would have completed the gauge conversion at its own cost in due course of time as it was an approved work included in WR's works programme. The WR would have incurred an expenditure of over Rs. 400 crore at present-day costs. With the JV arrangement, project was completed with the total expenditure of only Rs. 98 crore which MOR contributed as equity. The remaining funds came from other partner and through debt from open market, servicing of which was not MOR's responsibility.
- The project was completed in less than two years of contributing equity money and started paying revenues to MOR as freight.
- MOR recovered Rs. 50 crore as value of released material from the MG line.
- MOR was losing Rs. 20 crore per year on operating this uneconomical branch line. Losses of three years would wipe out the cumulative loss of Rs. 60 crore. Thus, MOR recovered the total contribution made for the project in less than three years.
- MOR got a guarantee of six MT of traffic in the first three years and thereafter a guarantee of three MT every year. This would not have been possible without the JV arrangement.

### **Gains to GPPL**

GPPL got rail connectivity to the port in time – in fact, much before port was ready for producing guaranteed traffic volumes of 3 MT.

- Port connectivity cost to GPPL was only Rs. 98 crore. Otherwise, they would have had to construct the entire line at their expense as a private siding.
- Early connectivity enhanced the share value of GPPL. - Port got traffic clearance guarantee from MOR.

- Land acquisition for new line was expedited as it was done by WR as an agency of GOI. For a private party, it would have taken much longer.

### **Problems faced in implementation**

There were problems encountered during the implementation, most of which were new both to the Railways as well as to the private investor, since it was the first joint venture. The majority of problems related to the signing of agreements with Railways which involved delays. Main delay was in the signing of construction agreement with the Western Railway which took over one year.

### **Signing of Construction Agreement**

Immediately after signing of the Shareholder and Concession Agreements, GPPL started pressing for the finalization of the construction agencies. This process took very long. The Railways wanted the passenger train operations to continue which conflicted with the freight operation requirements of GPPL and costs of implementing with passenger traffic requirements. The Saurashtra region of Gujarat is mainly served by MG passenger services and the gauge conversion of an 'Island Stretch' would separate and fragment the MG network. Therefore, there was need to convert the adjoining links to Bhavnagar (Dhola Jn. – Bhavnagar), to Mahua (Rajula Jn. – Mahua), and to Palitana (SihorPalitana). These conversions had to be financed by WR alone. Planning for these took time and affected the signing of the construction agreement.

During 2001-2002, discussions were held at different levels to decide upon the modality of choosing a construction agency. Possibility of engaging a private sector contractor was also explored by PRCL. PRCL found that at that time there were few contractors who could take up the work of this magnitude. The costs and time-frames quoted were also not favourable.

It was finally decided to entrust the job to WR whose construction organization was already in place. Considering the very tight-time

schedules of the project completion which was set as December 2002, WR suggested that procurement of all materials required be done by PRCL which may have more flexibility in finalizing purchase orders and arranging transportation of materials to site, as against the government procedures which are time consuming. It was a new concept where Indian Railways agreed to work as a contractor for a Private Sector Company. This was a path-breaking agreement signed in March 2002. This agreement opened up the Railways responding to the schedules set up by a private entity and deliver. The work was completed in March 2003, within one year. The line was opened to traffic and formally inaugurated in May 2003.

The main features of the agreement which helped were:

- i. Identify where Indian Railways are weak on project management:
- ii. Procurement:
  - PRCL to procure all P Way and signalling and telecom material, including rails, sleepers, ballast, fastenings, etc.
  - Materials to be inspected by WR
  - WR to provide schedule of supply to PRCL and locations of delivery
  - PRCL to arrange transportation to sites
  - PRCL to arrange welding of rail panels in WR Sabarmati welding plant and bear the cost of augmentation of the welding capacity of the plant.

### **Problems in Procurement**

This was the first big rail project under private sector and most rail project suppliers had committed supplies to IR. Being behind schedule for supplies to Indian Railway, they were not able to commit timely supplies to PRCL. Problem was particularly grave for procuring rails of which there was only one supplier in the country, namely, Bhilai Steel Plant of SAIL (Steel Authority of India Ltd.). Bhilai could not supply rails to any other buyer without the written

consent of IR whose own requirements were much more than Bhilai was able to produce. Therefore, the request of PRCL to the MOR for releasing a quantity of 30,000 MT of class-one rails from Bhilai Steel Plant was initially not accepted. Same was true of other critical items like points and crossings, turnouts, concrete sleepers and ballast. Despite all these difficulties, PRCL had to supply all the materials at site within a period of four months if the target of December 2002 was to be met. Other than shortage of materials, there were other critical issues of non-availability of railway wagons for transporting rails from Bhilai, track machines for the newly laid track, etc. due to pending works of IR itself. After a protracted process, the efforts of taking international supplies failed due to non conformity to IR standards and the tender was cancelled. Considering the importance of the first JV project of MOR and to meet the timeline, MOR finally agreed to release rails from Bhilai. Accordingly, orders were placed.

No track work could be done since the MG line was in operation and passenger trains were running. The passenger traffic was to remain suspended for more than 6 months for the construction. At the same time, the MG line had to be kept running till all the P way and other material had reached the designated sites along the 271 km stretch. Heavy materials like rails, sleepers, ballast and cables, etc. were difficult to transport on the entire length of the alignment by road since the road network did not connect the entire stretch.

Another major concern was carriage of rails from the steel plant to the welding plant and then after welding to several designated sites. Rails were supplied in 13 m lengths from the Bhilai Steel Plant and were to be converted into three rail length panels by welding through a special process (flash butt welding) which requires a special set of equipment. Options were to first take the rails to Sabarmati in the WR's flash butt welding plant, unload, have three rail panels welded, load on rail wagons, transport the panels to several sites on the MG rail track, unload and stack them for laying on the formation. Other option was to organize welding at a site on the line by using mobile welding plants. In 2002, mobile welding plants were not easily available. Therefore, welding was organized at Sabarmati. The

plant had limited capacity and was overloaded with the pending work of WR. It was, therefore, necessary to increase the capacity of the plant which was done at PRCL cost.

**O & M Agreement:** The fixing of the elements of fixed costs to be paid to WR for O & M of the line was the main concern. Each item of maintenance had to be analyzed and bench marked with the best practices. Help was taken from the Konkan Railway to define the elements and put down norms and unit costs. Staff costs being the major cost, tremendous efforts were required to set manning norms at half of what is followed on IR. There were problems of redeploying surplus staff. The process of redeployment was started early in 2001 and by 2004 it was possible to relocate most of the surplus staff. Help of WR was invaluable in this regard. This manning norm and practice became a benchmark for WR also for their future projects.

### **Funding Arrangements**

The Project line has been funded through a mix of equity and debt. The total project cost of Rs. 373 crore, was met by equity of Rs.196 crore and a debt of Rs.173 crore. The completion cost was lower at Rs. 367 crore.

**Table: Project Funding**

Source	Amount in	Percentage	Actual	Percentage
MOR equity	98.00	26.6	95.66	26
GPPL equity	98.00	26.6	98.00	27
Total Equity	196.00	53.1	193.66	53
Debt	173.00	46.9	173.00	47
Total	369.00	100.0	366.66	100

### **Means of Finance**

PRCL being an equal partnership between MOR and GPPL, the capital cost of Rs. 373 crore was financed by equity contribution of Rs. 196 crore on 50-50 basis by the two promoters and the balance by raising debt from the open market. The debt equity proportion was approved at 2:1 but

actually it was maintained at 0.86:1. The means of finance are given in the table below:

**Table : Means of Finance**

Sl. No.	Particular	Amount (in	% of project cost
1.	Equity		
(a)	Ministry of Railways and	100	27
(b)	GPPL and its Associates	100	27
2.	Debt from FIs and Banks	173	46
	Total	373	100

**Equity funding:** As discussed earlier, this is a joint venture company with an authorised capital of Rs. 200 crore. As on date, the company has received Rs.193.66 crore as contribution towards equity. The promoters, MOR and GPPL, were required to contribute equally to the tune of Rs.98 crore each. The equity contribution by MOR till date is Rs.95.66 crore and the balance investment of Rs.2.34 crore from MOR is to be capitalised from current liabilities of PRCL for project construction related expenses. GPPL, including its assigns GIC, NIA and I LandFS Investment have contributed their portion of the share capital, i.e., Rs. 98 crore. Until March 2005, GPPL was in default of not paying nearly Rs. 26 crore of its share capital amount, which it has subsequently paid.

**Debt funding:** PRCL has availed long term loans amounting to Rs.173 crore from various banks/financial institutions, details of which are set out in the table below. PRCL had taken an initial loan of Rs.173 crore with a moratorium period ending on 31st March 2005 and repayment in seven years starting from 1st April 2005. However, the company had renegotiated with the lenders and got a further extension of moratorium period from the lenders till 31st March 2007. Also, the lenders reduced the interest rate to eight percent instead of the original interest rates. Now this loan is repayable in seven installments starting from 1st April 2007. The lenders have also agreed for deferment of interest on term loan for the period January 2005 to March 2007. This amount will be treated as Funded Interest on Term Loan (FITL) and added to the loan amount which will be payable over the period of the loan term.

Apart from the above loans the company had taken a short-term loan of Rs.25 crore from IRFC (Indian Railway Finance Corporation) due to delay in receiving Railways' share of equity, which was repaid during 2005-06. The total debt is Rs. 204.70 crore inclusive of FITL and would be repaid in seven years starting from FY08.

**Table: PRCL's Long-Term Debt**

(Rs. crore)

Lender	Loan amount	Funded interest term loan	Total loan	Rate of interest percentage
Union Bank of India	50.00	9.16	59.16	8.00
Indian Railway	30.00	5.50	35.50	8.00
Central bank of India	25.00	4.58	29.58	8.00
State Bank of India	24.00	4.40	28.40	8.00
Bank of Maharashtra	24.00	4.40	28.40	8.00
General Insurance	10.00	1.83	11.83	8.00
New India Assurance	10.00	1.83	11.83	8.00
Total	173.00	31.70	204.70	

### Traffic Guarantee Agreement

PRCL entered into a Traffic Guarantee Agreement (TGA) with GPPL and MOR. As per the terms of this agreement, GPPL has to provide one million tons (MT) of cargo in the first year of operation (2003-04), two MT in the second year of operation and three MT from the third year onwards. So, from 2005-06 GPPL would be required to provide at least three MT cargo for the project line and MOR/WR as part of this agreement has to provide sufficient rolling stock for evacuation of minimum guaranteed traffic (MGT). In case there is any shortfall in the traffic, PRCL will be compensated for any shortfall by GPPL. While Railways also at times defaulted in 100 percent evacuation, the port traffic was continuously low over the years. GPPL was required to pay the minimum guarantee amount to the company.

**Traffic Guarantee revenue:** As per the traffic projections, GPPL is required to pay the traffic guarantee amount for FY06 and FY07. The traffic guarantee shortfall is to be calculated as follows:

Traffic shortfall for the year = Traffic guarantee - Actual traffic achieved during the year.

The amount of traffic shortfall is calculated by multiplying traffic shortfall @ Rs. 0.74 per ton per km.

Any variable cost saving due to traffic shortfall is calculated based on the variable cost per MT for the year.

Net traffic guarantee = Traffic shortfall amount – Variable cost saving.

The net traffic guarantee so calculated is payable by GPPL as the base traffic.

### **Traffic Projections**

In view of poor performance in the first three years of operation, GPPL revised the traffic projections to make them more realistic. Traffic projections were based on the port traffic projections given by GPPL. It was understood that the project line would fully depend upon the port traffic. Some corrections were made to make the projections more realistic by moderating and scaling them down.

**Traffic Performance:** The actual traffic on Pipavav Railway was 0.36 MT in the first year of operation (2003-04) which went up to 0.88 MT in 2004-05. The principal commodities moving on the corridor are containers, gypsum, coal, foodgrains, salt, and fertilisers. The projected cargo for 2005-06 was estimated at 1.38 MT and 1.59 MT was achieved by the company for this period. The traffic performance of the company for the first three years was rather poor as shown below:

**Table: PRCL traffic performance (in MT)**

Item	2003-04	2004-05	2005-06
Dry Bulk	0.26	0.10	0.55
Containers	0.13	0.78	1.02
Total	0.39	0.88	1.57

## **Financial Performance**

PRCL's profit and loss statements and balance sheet for 2003--04 and 2004- 05 show that PRCL has incurred losses of Rs.32.96 crore and Rs.24.72 crore for the years 2003-04 and 2004-05, respectively. The principal reason for this is the low cargo originating/destined from GPPL. The traffic on the corridor was 0.39 MT and 0.88 MT during 2003-04 and 2004-05 as against the traffic guarantee of one MT and two MT, respectively. The unique feature of PRCL's existing business is that GPPL would pay for the shortfall in traffic. However, in the past two years, GPPL has not paid the traffic shortfall of Rs.27 crore and the company had to struggle hard to resolve this issue.

## **Successes of the Project**

- Project was completed within one year of signing the construction agreement;
- There were no cost overruns;
- Manpower requirements were scaled down to 50 percent of railway norms;
- New standards of maintenance practices were introduced.

## **Weaknesses of the project**

- There was serious delay in finalizing the Construction Agreement with Western Railway. It took one year to get it signed.
- The finalization of Operations and Maintenance Agreement with Western Railway also took long.
- There was a serious problem and delay in finalizing the order for rails; first Railways agreed to supply, then withdrew the offer. There was again a delay in finalizing an international tender for rails. Subsequently, after six months of delay, Railways agreed to the supply of rails from Bhilai steel plant.

- The most serious weakness of the project was its inability to get the projected traffic. Even guaranteed traffic of one, two and three MT in the first three years respectively did not materialize. This created a serious problem of inability to service the debt. Failure to do so would have rendered the Company as an NPA and could have resulted in bankruptcy.
- All this was due to the fact that GPPL went under restructuring and replacing the original promoter SKIL with AP Moeller. The new management of GPPL dithered in honouring the commitments made by GPPL toward payment of traffic guarantees.
- A major gap in equity funding happened because GPPL did not bring in the full equity in time.
- The port development was tardy and even bulk traffic like coal and fertilizers could not be handled resulting in poor materialization of traffic.