



Public-Private Partnership in Rail Infrastructure

a kutch rail experience

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24th March 2007

Background

- Infrastructure is the key to development for any country both for economic growth and poverty reduction.
- Over the years developing countries including India have suffered from inadequate public expenditure in the infrastructure sector owing to pressing demands from other government obligations.
- Government of India has recognized that there is significant deficit in the availability of physical infrastructure across different sectors and that it is hindering economic development in the country.

Transportation is the Key

- Domestic market demands continues to maintain aggressive posture and with recovery of world trade market, Indian market is going to grow both externally as well as domestically which will require large scale investment in infrastructure sector.
- High transportation costs arising out of inadequate and inefficient infrastructure affects the economy from realising its full potential regardless of the progress in other areas.
- The physical infrastructure has direct bearing on the quality of life and a quality of speedy infrastructure through proper policy initiatives constitutes the first & foremost challenge for the Govt.

Need for Private Investment

- 10 Infrastructure requires large investments that can not be undertaken out of public financing alone.
- 10 Need for the role of private investors was long felt.
- 10 In order to attract private capital as well as the technological managerial efficiency associated with it, the Govt. of India has decided to promote Public Private Partnership in infrastructure development.

JVs in Rail Infrastructure



(The Beginning of New Era)

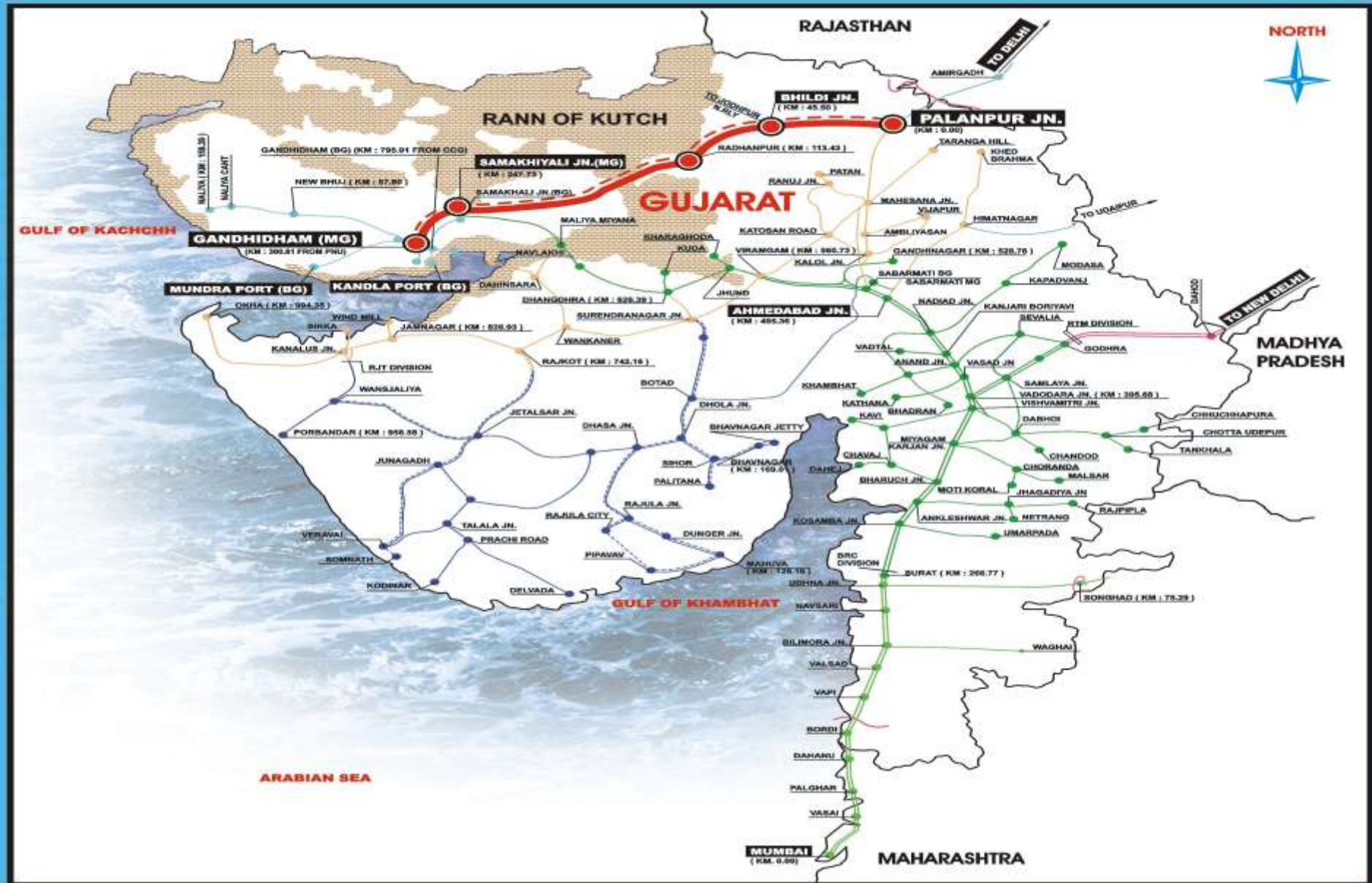
- Govt of India under state policy provides rail infrastructure based on techno-financial justifications
- However due to limited resources, there has been gap in demand and supply and new projects were not getting adequate allocation.
- It was only in 2000 IR called for public-private-partnership and first JV was set up for converting 250 km Surendranagar - Rajula MG line and its further 20 km extension to Port of Pipavav in the state of Gujarat.
- In 2003 second JV was set up for converting 185 km Hasan – Mangalore MG line in the state of Karnataka.
- In 2003, under National Rail Vikas Yojna, MOR created RVNL, a special purpose vehicle to execute various projects through non-budgetary resources
- In 2004, RVNL set up its first JV to convert 301 Km MG line from Palanpur to Gandhidham in the state of Gujarat and Kutch Railway Co was created for this purpose.

Kutch Railway Company Limited

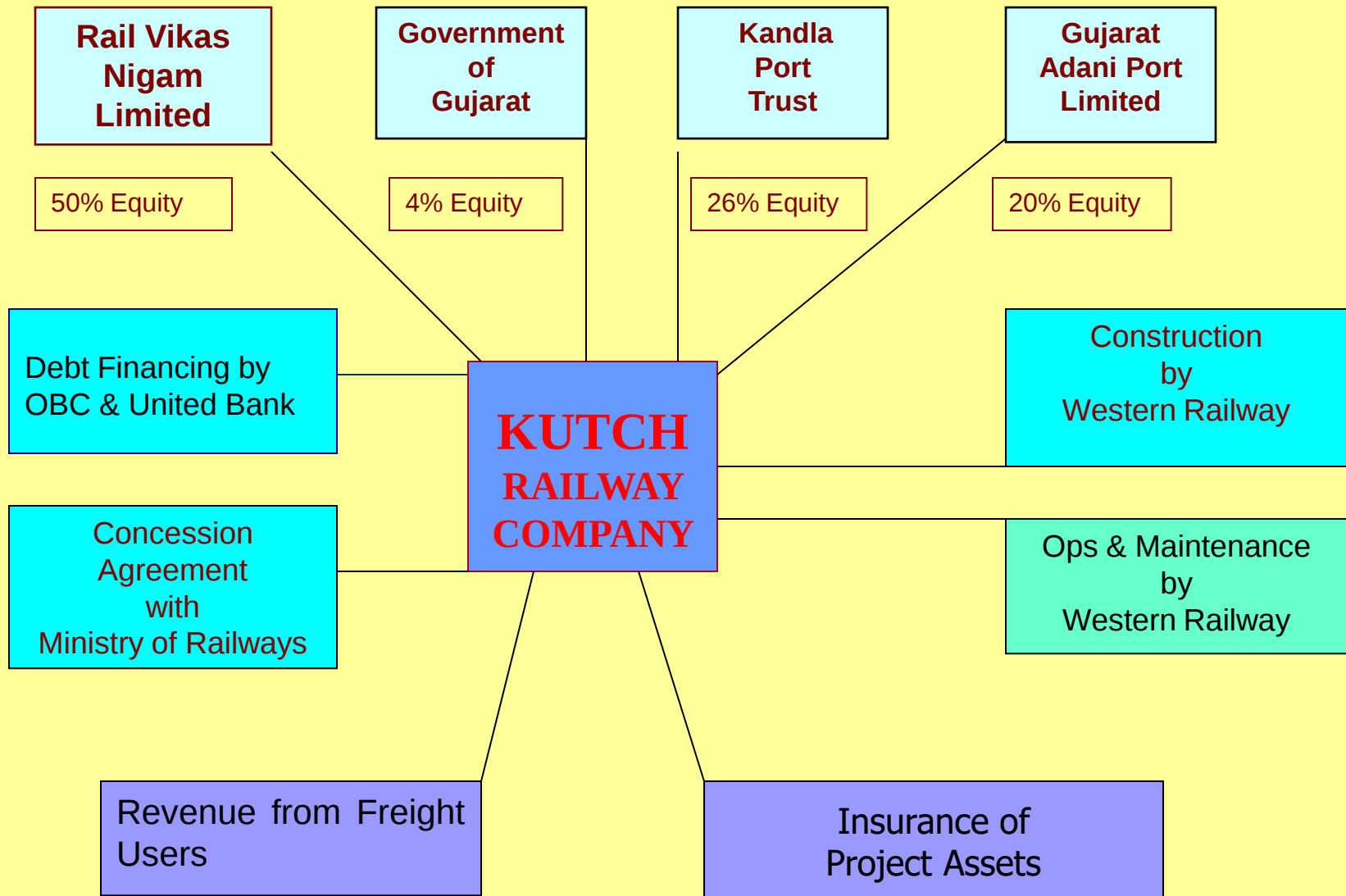
- A joint venture company promoted by the following shareholders.
 - Rail Vikas Nigam Limited
 - Kandla Port Trust,
 - Gujarat Adani Ports Limited and
 - Government of Gujarat.
- Incorporated under Companies Act 1956 and conferred with the rights of a Railway Administration under Railway Act 1989.
- Company is mandated to plan, finance, construct, operate and maintain 301 km Palanpur - Gandhidham broad gauge line in the state of Gujarat.



Kutch Railway - Project Location



LEGAL AND CONTRACTUAL FRAMEWORK



Project Structuring



- A Special Purpose Vehicle was created to implement the project
- KRC is a Joint Venture Company and not a PSU, IT enjoys more flexibility.
- DE ratio is kept as 1.5:1, as project can absorb more debt component.
- Out of Rs. 500 cr project cost
 - Rs. 200 cr raised as Equity from the shareholders
 - MOR through Rail Vikas Nigam - Rs. 100 crore
 - Kandla Port Trust – Rs. 52 Crore
 - Gujarat Adani Ports Limited – Rs. 40 Crore
 - Government of Gujarat – Rs. 8 Crore
 - Rs. 300 cr raised as Debt from PSU banks
- Full equity capital of Rs. 200 cr was infused first before raising debt

Concessionaire's Rights and Obligations

- 32 year Concession agreement with MOR provides
 - Exclusive right to KRC for executing all activities relating to development, financing, design, construction, operation and maintenance of 301 km Palanpur – Gandhidham Project Railway and IR leased all assets on this section to KRC for 32 years.
 - Right to KRC to receive its apportioned earnings from freight traffic moving on the Project Railway as per Inter Rly Financial Adjustment.
 - Right to KRC for commercial exploitation of project assets leased under the agreement.
 - KRC is obliged to bear all cost on O&M during concession period, Shareholders provide no subsidy.
 - KRC is obliged to permit WR to run same number of passenger trains as were running during the meter gauge time free of any access charge
 - KRC to engage WR an agency for construction, maintenance and operations

Construction Agreement



- Company appointed WR as Engineering, Procurement and Construction agency to carry out gauge conversion
- Generally procurement of material takes long time in the Govt. Company decided to procure material in order to expedite construction
- Railway undertook all works contracts, including construction of bridges, buildings, earthwork, welding and supply of rails, linking, etc.
- Company conducted periodical inspections to satisfy quality and monitor progress of construction works.
- KRC being railway JV, no departmental charges, which are applicable for private parties, are payable by the Company.

Project Management – Key Issues

- For any infrastructure project key issues are:
 - Project is conceived after due diligence and bankability study
 - Proper mix of equity & debt and time for infusion of funds
 - Engaging suitable construction agency to
 - Control cost over run - if possible phased implementation
 - Control time over run with appropriate planning
 - Ensure strict inventory control of the construction material to save cost
 - Quality assurance by independent agency
 - Management of funds during execution
 - Lean but effective SPV organisation



Project Cost Management

- **Year 1998-99 - Rly ordered survey for undertaking BG conversion of this line.**
- **Year 2002-03 – Work sanctioned at estimated cost of Rs. 344.64 Cr**
- **June 05 - The cost revised to Rs. 463.14 Cr**
- **December 05 – After KRC became operational, cost was critically reviewed and it was possible to reduce the same to Rs. 447.90 Cr**
- **Finally KRC shall be able to close the estimate at Rs. 438 Cr, with savings of 5.5% in the project cost**
- **Thus KRC effectively controlled cost over run.**



Debt Financing Management

- Based on old business plan, sanction of Rs. 500 Cr term loan received at interest rate ranging from 9% - 8% per annum.
- Due to proper project appraisal and restructuring of business Plan, many other banks also offered Term Loans to KRC. OBC offered Rs. 100 Cr at 7.5% rate of interest
- Company asked other banks to match OBC rates. Finally OBC and United Bank took up entire exposure of Rs. 300 Cr at 7.5%. Rate of Interest is linked with BPLR and shall be revised every 3 years
- Term -- 15 years, including 2 years moratorium on repayment
- No security on government assets, only assets created by the company are hypothecated
- This has been the lowest ever rate of interest availed by any Rly company

Fund Management

- Company raised full equity of Rs. 200 Cr from shareholders and decided to defer debt raising.
- Disbursement of debt was taken need based. Only Rs. 168 Cr debt utilised upto completion of phase I.
- It was possible to control inventory of material and the material such as rails, sleepers, ballast, track fittings, etc. were put in track soon after they are received at site.
- Overhead Expenditure controlled by keeping lean organisation.
- Due to fund raising at competitive rates and control on fund utilisation, huge savings on IDC and DSRA achieved.



Landed Project Cost-Controlled

- Due to savings in cost of construction and cost of fund raising, it has been possible to reduce the landed cost as follows and Company declared its Financial Closure in December 05

Item	Earlier Est (Rs in Cr) (as on June 05)	Modified Cost (Rs. In Cr) (As on Feb 07)
Capital Cost	463.14	437.45
Cost of other assets	0.74	2.75
IDC	36.04	17.50
DSRA	31.97	11.25
Cost of debt financing	6.65	2.50
Working capital	0.50	2.50
Contingency	11.71	16.00
Total	550.75	489.95



Implementation Schedule



- **Project was commissioned in two phases.**
 - **Phase I – 248 kms GC from Palanpur to Samakhiali - Commissioned on 24th March 2006**
 - **Phase II - 53 Kms GC from Samakhiali to Gandhidham – Commissioned on 26th November 2006**
- **Phase I has been commissioned within in 99 days of operation of mega block.**
- **Phase I established direct BG connectivity with Gandhidham, hence train operations begins, while phase II was still under execution.**

Challenges Faced



- ❖ Welding of rails - 301 Track KMs
 - ❖ Executed 38000 welds with mobile Flash Butt welding plant and 12000 SKV welds after linking.
- ❖ Construction of one mega bridge
 - ❖ Special team deputed and work closely monitored
- ❖ Mobilization of huge construction material in a very short time.
 - ❖ Strict monitoring and timely release of payment to vendors (upto 90%) helped
- ❖ Delayed execution due to serious rains in the area
 - ❖ Contingent plans for carting of material made

Operations on the Project Railway

- As railway operations are very complex, for seamless operations, it is decided to award operations & maintenance contract to the Western railway, Operations of trains involving passenger services involves many legal issues.
- It is cost effective, as the same field establishment manages day to day operations. Railway also manages accidents and other unusual occurrences
- Number of railway staff on benchmarking norms to control recurring cost.
- Railways rolling stock moves freely on the Project Rly, No stock taking on interchange points.
- WR manages train operations on the Project Railway under an agreement.

Operations & Maintenance



- Under the contract, WR manages maintenance of KRC assets.
- Basically O&M cost consists of the following:
 - **Cost of Railway staff posted on line and at divisional HQ. –**
 - KRC shall pay for the actual number of employees posted on the project section
 - With mechanization, number of staff reduced by more than 30% as compared to conventional system of maintenance
 - Activities such as running room management, etc. outsourced
 - **Cost of Material –**
 - As per actual consumption payable by WR
 - KRC shall have effective control on inventory and proper usage.
 - **Variable cost –**
 - Cost of wagon /loco/ fuel/ crew/ running repairs/ documentation/ claims settlement/etc
 - KRC has computer software to monitor train operations and cost control
 - **Other overheads** – such as cost on medical, security, accounts, HR, etc.deferred for first five years period.

Marketing & Revenue Stream



- KRC receives apportioned revenue for the traffic passing on the project railway.
- KRC also runs double stack container trains, which reduces unit cost of operations in case of EXIM cargo
- KRC is empowered to grant volume freight discounts to attract incremental traffic from roads. It has distance advantage over other rail routes for the northern hinterland.
- KRC shall have aggregation centers to deal with less than train load traffic.
- KRC shall harness potential of commercial exploitation of assets, such as advertisement, shops, warehousing, etc. on the project section

SPV Effect - How did IR gain?

- KRC has speeded up the pace of the project as can be seen from the following:
 - Work was sanctioned in Yr 2001-02
 - Total Expenditure in last 4 years upto March 05 was – Rs. 152 Cr
 - Expenditure expected in yr 2005-06alone - Rs. 216 Cr
- Out of the Rs. 447 Cr cost of Construction, IR contributed only Rs. 100 Crore.
- Rs 400 Cr mobilised from other sources, including Rs 100 Cr as equity from other shareholders and Rs.300 Crore as debt from financial institutions.
- IR shall recover approximately Rs. 80 Crore from the sale of released MG material.
- This MG line was incurring huge losses as hardly any traffic was moving on this line due to transshipment at Palanpur and high cost of transportation in meter gauge
- Kutch rail provides much shorter route to Kandla and Mundra ports and decongest the existing rail route, thus savings on cost of operation for IR.
- WR will have access to run passenger train services free of charge on the KRC line.

How did other Promoters gain?

- Kandla and Mundra ports have ambitious business plans. Rail connectivity is key to development of any port.
- The existing rail infrastructure was inadequate in meeting growing demands.
- KRC has provided much shorter and faster route to these ports, thus making them more competitive to other ports such as Pipavav, JNPT, etc. These ports shall witness double digit growth every year.
- Due to better connectivity, a large number of major industries are moving to Kutch region. This shall lead to more opportunities for the state and rapid growth in many areas including employment, real estate, power, roads, health, service sector etc. It shall boost the overall development in the state of Gujarat
- As KRC shall operate on less cost due to lean organization and mechanized maintenance, it shall pass on some benefits to their customers in order to attract more traffic, thereby benefiting the shareholders.

How did customers gain

- Ghandhidham area due to line capacity constraints was getting chocked and customers were resorting to use other modes at higher cost,
- KRC provides 64 km shorter route, vis a vis earlier route via Palanpu, more savings as compared to electrified route.
- Running time between Gandidham – Palanpur reduced by more than 50%, it is now taking 10 Hrs instead of more than 24 Hrs on the earlier route
- Cost savings upto 5 - 10% in freight, being enjoyed by the customers
- Exporters find Kandla and Mundra ports more competitive due to shorter route.
- Reduced cost of movement of EXIM cargo due to double stack

Advantage Gujarat

Ports	Rail distance to TKD (in km)	Rail distance to TKD (Gurgaon area) after RE- Ringus- Phulera GC(Dec 07) in kms	Savings in Distance over JNPT(in bracket after RE- PH GC) in Kms	Savings in freight being availed by the customers
JNPT	1501			
Pipavav	1279	1211(1161)	290 (340) 19 – 22%	25(22%)
Mundra	1181	1116(1066)	385 (435) 26 – 30%	25(30%)
Kandla	1129	1064(994)	437 (507) 29 – 34%	28(33%)

Financial Performance – May 06 – Feb 07

- Total No. of Trains run – 4296
 - Loaded 2810
 - Fert – 968, Food Grain – 613, Coal – 114, Salt – 267, POL -221
 - Container – 454 (35299 TEUs), Others - 73
 - Empty 1486
- Tonnage Handled – 6.57 million tonne
 - Non Container – 5.99 million tonne
 - Container - 0.58 million tonne
- Revenue Earned - Rs. 90.10 Cr
 - Non Container - 81.10 Cr
 - Container - 8.94 Cr
- Operating Cost - Rs. 76 Cr (upto Feb 07)
- Operating Surplus - Rs. 14 Cr

THANK YOU